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EFFECT OF SELECTED YOGIC ASANAS ON RANGE OF MOVEMENT AT SELECTED JOINTS OF COLLEGE MALE STUDENT

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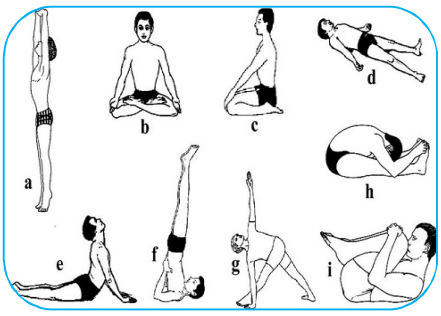
ABSTRACT:



This study aimed was to find out the effects of asanas on the improvement of range of movement at wrist joint (downward and upward movement) and hip joints (Forward and backword movement). For this study 40 subjects were selected from the Government College Mahmudabad, Sitapur studying in BA having physical education as a subject and their age ranged between 18 to 21 years. The subjects were equally divided into two group i.e. experimental group and control group. The experimental group participated asanas (Halasana, Padahastasana, Paschimottanasana, Setu Bandhasana, Bhujangasana, Chakrasana) 1 hour per day except Sunday. The significance difference was found in pre-test and post-test means of range of movement at wrist and hip joints in experimental group whereas control group did not show any significant improvement.

KEYWORDS: *Asanas, Range of movement, Goniometer.*

INTRODUCTION

Human skeleton is consisting of different tissue, organs, bones, muscles, nerves. Physical activity helps to keep these in proper condition. Proper and regular physical exercise helps to maintain and develop the strength of muscles and joints (bones). In yoga asanas are very good for the development of joint strength and range.

When we gently stretch our muscles and joints during yoga (asanas), it helps to relax the body and reduce tension. This stretching also helps the joints produce a natural fluid called synovial fluid, which works like oil for a machine. It keeps the joints smooth, soft, and flexible. This fluid also helps to clean out waste from the joints. With regular yoga practice, our bodies become more flexible. Flexibility is one of the component of Physical Fitness. Flexibility is required for good and effective joint movement. Good flexibility is required to reduce the chance of joint injury or joint functional problem and give opportunity to full range of movement. Neeraj Pratap Singh, Nikhil Kumar Rastogi study effect of yogasana practice for 6 weeks on range of movement at selected joints the result shows effective in improving range of movement of hip, knee and ankle joint. Pramod K.G, Aruna Raj also study the effect of asanas in joint range. Their study concluded that twelve weeks of yogasana practices significantly changed the joint range of motion. Smt. M.V Bajappanavar, Dr. Jyoti A. Upadhye also noticed form their study that yogasanas practice noticeable impact the flexibility of the body

SELECTION OF SUBJECTS

Total 40 subject were randomly selected from the Government College Mahmudabad, Sitapur those are studying in BA having physical education as a subject. Selected subject was divided into two

groups (experimental group and control group) having 20 subjects in each group. Selected subjects were found to be physically fit and aged was ranged between 18 to 21 years.

SELECTION OF ASANAS

After consulting the yoga expert and studied the related literature the researcher finalized the following aasanas for the study

i) Halasana
ii) Padahastasana
iii) Paschimottanasana
iv) Setu Bandhasana
v) Bhujangasana
vi) Chakrasana

ADMINISTRATION OF TRAINING PROGRAM

Before the administration of training program 5-day practice session conducted for the subject to explain and practice the asana. practice sessions were conducted and supervised by the researcher himself. In morning 9:00 AM to 10:00 AM (60 minutes) 6 day in a weak (except Sunday) for 4 weeks training was given to the experimental group with the following schedule and no training was given to the control group.

Table 1

	1st Week		2nd Week		3rd Week		4th Week	
	Duration In sec	Repetition Count	Duration In sec	Repetition Count	Duration In sec	Repetition Count	Duration In sec	Repetition Count
Halasana	8-10	2	8-10	3	10-12	3	10-12	4
Padahastasana	8-10	2	8-10	3	10-12	3	10-12	4
Paschimottanasana	8-10	2	8-10	3	10-12	3	10-12	4
Setu Bandhasana	8-10	2	8-10	3	10-12	3	10-12	4
Bhujangasana	8-10	2	8-10	3	10-12	3	10-12	4
Chakrasana	8-10	2	8-10	3	10-12	3	10-12	4

Note – Rest in shavasana was given to the students after every round.

COLLECTION OF DATA

Wrist movement (downward movement & upward movement) and hip joints (forward movement & backward movement) were measured with the help of goniometer in degree. The joint range was measured by placing the goniometer, so that its axis pin was over the joint to be measured with the upper of the instrument fixed parallel to the long axis of the segment above, and the lower arm of the protractor left free to move with the segment below the joint was measured and score was recorded in degrees.

Table 2
COMPRESSION OF WRIST JOINT DOWNWARD MOVEMENT (IN DEGREES)

Experimental Group		**Control Group**		DM	't'- ratio
Pre- Test	Post- Test	Pre- Test	Post- Test		
70.45		70.05		0.40	0.61
70.45	76.10			5.65	6.20*
		70.05	70.87	0.82	0.09
	76.10		70.87	5.23	3.93*

*Significant, $t_{0.05}$ (14)=2.093

Table 3
COMPRESSION OF WRIST JOINT UPWARD MOVEMENT (IN DEGREES)

Experimental Group		Control Group		DM	't'- ratio
Pre- Test	Post- Test	Pre- Test	Post- Test		
77.55		77.10		0.45	0.58
77.55	82.20			4.65	5.87*
		77.10	77.40	0.30	0.08
	82.20		77.40	4.80	3.59*

*Significant, $t_{0.05}$ (14)=2.093

It is clear from table 2 and 3 that there is no significant difference between the pre-test of experimental and control group as well as no difference in pre-test and post-test of control group where as significant difference was found in Pre-test and post-test of experimental group and post-test of experimental and control group. experimental group shows significant improvement in the range of movement at wrist joint.

Table 4
COMPRESSION OF HIP JOINT UPWARD MOVEMENT (IN DEGREES)

Experimental Group		Control Group		DM	't'- ratio
Pre- Test	Post- Test	Pre- Test	Post- Test		
129.50		129.40		0.10	0.60
129.50	134.27			4.77	6.17*
		129.40	129.60	0.20	0.24
	134.27		129.60	4.67	4.18*

*Significant, $t_{0.05}$ (14)=2.093

Table 5
COMPRESSION OF WRIST JOINT UPWARD MOVEMENT (IN DEGREES)

Experimental Group		Control Group		DM	't'- ratio
Pre- Test	Post- Test	Pre- Test	Post- Test		
41.40		41.60		0.20	0.690
41.40	47.28			5.88	6.88*
		41.60	41.65	0.05	0.19
	47.28		41.65	5.63	4.77*

*Significant, $t_{0.05}$ (14)=2.093

It is clear from table 4 and 5 that there is no significant difference between the pre-test of experimental and control group as well as no difference in pre-test and post-test of control group where as significant difference was found in Pre-test and post-test of experimental group and post-test of experimental and control group. experimental group shows significant improvement in the range of movement at hip joint.

DISCUSSION OF FINDINGS

There was a noticeable improvement in how far the wrist and hip joints could move (i.e., their range of motion) after participating in a yoga program. Experimental group have noticeable improvement in the range of movement at wrist joint (downward and upward movement) and hip joint (forward and backward movement). Consistency and Duration Played a Role: It's also implied that the participants practiced yoga regularly enough for the body to adapt and improve over time. Yoga helped increase flexibility at the wrist and hip joints because the movements were well-designed and effective. The physical load during yoga was enough to stimulate change, leading to better joint mobility.

CONCLUSIONS

On the basis of findings of the study it concluded that a yogic asanas training program has been found to be effective in improving the range of movement (flexibility and mobility) of all wrist and hip joints. This means that individuals who regularly practiced yoga experienced better joint flexibility and could move these joints more freely. On the other hand, the control group—those who did not participate in the yoga training—did not show any significant improvement. This lack of progress may be due to inactivity or a sedentary lifestyle, which can lead to stiffness and reduced joint mobility over time.

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