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CONSEQUENCE OF BALANCING ASANAS AND MALLAKHAMB PRACTICESON SPEED AND AGILITY AMONG SCHOOL ATHLETES

Dr. V. Elavarasi[1], Dr. M. Selvam[2]

[1]Director of Physical Education, Government Arts and Science College, Tittagudi, Tamilnadu, India.

[2]Director ofPhysical Education, Government Arts and Science College for Women, Paramakudi, Ramanathapuram District, Tamilnadu, India.

ABSTRACT

The research aimed to evaluate the consequence of balancing asanas and mallakhamb practices on speed and agility among school athletes. Thirty school U-19 girls from the Sivagangai district divisional level track and field athletes were randomly selected and divided into three groups: experimental group I, experimental group II, and a control group, each consisting of ten players. All groups followed their regular athletic practice routines, with experimental group I incorporating balancing asanas and experimental group II engaging in mallakhamb practices for one hour during morning sessions, three days a week on alternate days. The control group did not undergo any additional training. Training lasted for eight weeks, with sessions held three days a week on alternate days. Data on the selected dependent variables were collected in both the pre training and post training period and analyzed using analysis of covariance (ANCOVA) and scheffe's post hoc test, with a significance level at 0.05. The results indicated significant improvements in speed and agility among athletes who participated in balancing asanas and mallakhamb practices compared to those in the control group. Consequently, the study concluded that these training methods significantly enhanced the speed and flexibility of track and field athletes.

Keywords: Balancing Asanas, Mallakhamb practices, Speed and Agility.

1. INTRODUCTION

Physical education and sports are integral components of a well-rounded education and play a crucial role in the overall development of individuals. It can also help prevent chronic diseases such as obesity, diabetes, and hypertension. It can improve mood and mental clarity, leading to better overall mental health. Participation in sports promotes teamwork, communication, and cooperation. It helps individuals develop social skills, build relationships, and learn how to work with others towards a common goal. Sports teach important life skills such as goal setting, perseverance, and resilience. They also instill values such as discipline, sportsmanship, and respect for others. Studies have shown that regular physical activity can improve academic performance. It can enhance cognitive function, concentration, and memory, leading to better learning outcomes. Overall, physical education and sports are essential for promoting a healthy and active lifestyle, as well as for fostering personal and social development. Smith [2018].

Track and field athletes are a breed apart, embodying the pinnacle of human physical prowess and endurance. These athletes compete in a wide array of events, from lightning-fast sprints to graceful long jumps, from precise pole vaults to powerful shot puts. Each event requires a unique combination of speed, strength, technique, agility and mental fortitude, making track and field one of the most demanding and exciting sports in the world. Track and field athletes inspire us with their dedication, discipline, and determination, showcasing their athleticism and dedication. Their feats on the track and in the field inspire admiration and respect, making them iconic figures in the realm of sports pushing the boundaries of human potential with every stride, jump, and throw. Jones and Smith [2019].

Balancing asanas in yoga can enhance sports performance in several ways, particularly by improving stability, focus, and muscle strength. Balancing poses like Tree Pose- Vrikshasana or Eagle Pose- Garudasana require athletes to engage their core muscles and focus on their alignment to maintain balance. This can improve overall stability and body control, which is beneficial for sports that require quick changes in direction or balance, such as gymnastics or martial arts. Balancing poses require a high level of concentration and focus to maintain. This can help athletes improve their mental focus and concentration, which is crucial for sports that require precision and quick decision-making, such as archery or golf. Balancing poses often require athletes to engage and strengthen muscles throughout the body, particularly in the legs, core, and ankles. Poses like Virabhadrasana or Half Moon Pose- ArdhaChandrasana can help athletes build strength in these areas, By strengthening muscles and improving balance, balancing asanas can help prevent injuries, particularly those related to falls or instability. This is beneficial for athletes in sports that involve running, jumping, or quick changes in direction.Balancing poses often require strength and flexibility, particularly in the core, legs, and ankles. Strengthening these areas can improve athletic performance. Balancing poses can help athletes develop a greater awareness of their body and how it moves in space. This can improve overall coordination and proprioception, which is beneficial for sports that require precise movements, such as dance or figure skating. Incorporating balancing asanas

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into a regular training routine can help athletes improve their overall performance. Vikram Singh [2014]. Mallakhamb is an ancient Indian sport that has its origins dating back to the 12th century. The practice of mallakhamb was mentioned in the "Manasholes," written by Chalukya in 1153 A.D., where wrestlers were described exercising on wooden poles. However, it was revived in the late 19th century by Balambhatta Dada Deodhar, who was the physical instructor to BajiraoPeshwa-II. He made significant efforts to popularize the sport. The name "mallakhamb" is derived from the words "malla" meaning wrestler and "khamb" meaning pole. The sport involves performing various gymnastic and acrobatic feats on a vertical wooden pole or a rope. The shape of the mallakhamb apparatus resembles the human body structure originally, mallakhamb was closely associated with kusti (Indian wrestling), as wrestlers used it to learn different styles of wrestling. However, modern mallakhamb practices have evolved to include gymnastics elements and focus less on traditional wrestling grips. Mallakhamb is considered a holistic discipline that builds an ideal physical body structure. It is a unique sport as it is played against gravity, making it an excellent exercise for the body, especially for the backbone.VishwajitThakare [2015].

2. METHODOLOGY

The primary objective of this study was to investigate the impact of balancing asanas and mallakhamb practices on speed and agility among school athletes. Thirty U-19 female track and field athletes from the Sivagangai district were randomly selected and divided into three groups: experimental group I, experimental group II, and a control group, each consisting of ten players. All groups followed their regular athletic practice routines, with experimental group I incorporating balancing asanas and experimental group II engaging in mallakhamb practices for one hour during morning sessions, three days a week on alternate days. The control group did not undergo any additional training. The training lasted for eight weeks, with sessions held three days a week on alternate days. Data on the selected dependent variables were collected both before and after the training period and analyzed using analysis of covariance (ANCOVA) and Scheffe's post hoc test, with a significance level at 0.05. The results showed significant improvements in speed and agility among athletes who participated in balancing asanas and mallakhamb practices compared to those in the control group. Therefore, the study concluded that these training methods significantly enhanced the speed and agility of track and field athletes.

2.1 Training Programme

Warm-up: Begin with a general warm-up, such as light jogging or jumping jacks, followed by dynamic stretches and mobility exercises specific to mallakhamb and balancing asanas poses. Training: Alternate between mallakhamb postures and balancing asanas, focusing on speed, agility, and balance. Pay attention to proper form and alignment. Limbering down: After completing the training, perform a series of static stretches for the entire body, focusing on areas that were worked during the session. Finish with relaxation techniques, such as deep breathing or meditation, to promote recovery and reduce stress. Remember to listen to your body and modify the intensity of the warm-up and cool-down based on your fitness level and needs. Proper hydration before, during, and after exercise is also important.

TABLE – 1- The Eight Weeks Balancing Asanas included the following

Week	Focus	Training Components
Weeks 1-2	Foundation	Basic balancing asanas: Tree Pose, Warrior III, Eagle Pose - 3 sets of 30 seconds each
Weeks 3-4	Building Stability	Intermediate balancing asanas: Extended Hand-to-Big-Toe Pose, Half Moon Pose, Side Plank - 3 sets of 45 seconds each
Weeks 5-6	Improving Coordination	Advanced balancing asanas: Crow Pose, Handstand, Dancer's Pose - 3 sets of 60 seconds each
Weeks 7-8	Integration and Refinement	Flow sequence incorporating balancing asanas and dynamic movements - Partner-based asanas

TABLE – 2. The Eight Weeks Mallakhamb Practices included the following

Week	Focus	Training Components
Weeks 1-2	Foundation	Basic Mallakhamb postures emphasizing agility ladder drills - 3 sets of 30 seconds each
Weeks 3-4	Building Speed	Intermediate Mallakhamb postures focusing on speed - Speed training: sprints, shuttle runs, agility cone drills - 3 sets of 45 seconds each

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Weeks 5-6	Increasing Agility	Advanced Mallakhamb postures with dynamic movements Agility and plyometric training: tuck jumps, lateral bounds, box jumps - 3 sets of 60 seconds each
Weeks 7-8	Integration and Refinement	Combined Mallakhamb postures in flow sequences Sport specific drills: table tennis footwork, reaction drills - 3 sets of 60 seconds each

TABLE – 3. Counter Measures

Variables	Test	Measures
Speed	50mts run	seconds (no)
Agility	4×100m shuttle run	seconds (no)

3. RESULTS AND DISCUSSION

The analysis of covariance and scheffe's post hoc test on the data obtained on Speed and Agility of mexperimental and control groups have been analyzed and tabulated in Table-4,5,6, and 7.

TABLE – 4. Analysis of Covariance for Pre and Post Tests Data on Speed of Experimental and Control Groups

*Significance at .05 level, df 2 and 27= 3.35, 2 and 26=3.37

	Control	Balancing Asanas	Mallakhamb Practices	Source of Variance	Sum of Squares	df	Mean Squares	'F' Ratio
Pretest	7.93	7.82	7.99	Between	00.15	02	0.07	00.18
				Within	10.97	27	0.41	
Post test	8.23	7.38	7.36	Between	04.93	02	2.47	06.40*
				Within	10.40	27	0.39	
Adjusted Post test	8.21	7.47	7.29	Between	04.83	02	2.41	66.13*
				Within	00.94	26	0.04	

Table 4 presents the pretest and post-test means for the control, balancing asanas, and mallakhamb practices groups. The pretest means were 7.93, 7.82, and 7.99 for the control, balancing asanas, and mallakhamb practices groups, respectively. The F-ratio value of 0.18 for the pretest mean indicates no significance at the 0.05 level. For the post-test data, the means were 8.23, 7.38, and 7.36 for the control, balancing asanas, and mallakhamb practices groups, respectively. The F-ratio value of 6.40 for the post-test data is greater than the required table value of 3.35, indicating significance at the 0.05 level. Additionally, the adjusted post-test means were 8.21, 7.47, and 7.29 for the control, balancing asanas, and mallakhamb practices groups, respectively. The F-ratio value of 66.13 for adjusted post-test data is greater than the required table value of 3.37, indicating significance at the 0.05 level. These results suggest that there is a significant difference among the groups in terms of speed as a result of balancing asanas and mallakhamb practices. Scheffe's post-hoc test was used to determine the significant paired mean differences between the groups.

TABLE – 5. Ordered Scheffe's Post Hoc Test for Mean Difference between Groups on Speed

Mean values			MD	CI
Control	Balancing Asanas	Mallakhamb practices		
8.21	7.47	-	0.75	0.21
8.21	-	7.29	0.93	0.21
-	7.47	7.29	0.18	0.21

Table 5 displays the mean differences and confidence intervals (CI) for the speed improvement between the control group and the balancing asanas group, as well as between the control group and the mallakhamb practice group. The mean difference between the control group and the balancing asanas group is -0.75, with a confidence interval of ±0.21. This difference is significant at the 0.05 level of confidence. Similarly, the mean difference between the control group and the mallakhamb practice group is 0.93, with a confidence interval of ±0.21, also significant at the 0.05 level of confidence. However, there is no significant difference in speed improvement between the balancing asanas and mallakhamb practice groups. These results indicate that both balancing asanas and mallakhamb practices have a significant effect on speed compared to the control group, but there is no significant difference in speed improvement between the two training modalities.

Table 6 presents the pretest means for agility in the control, balancing asanas, and mallakhamb practice groups, which are 12.09, 11.73, and 12.01, respectively. The obtained F-ratio value of 1.54 for the pretest mean is less than the required table value of 3.35, indicating no significance at the 0.05 level. For the post- test means, the control group scored 12.47, the balancing asanas group scored 11.32, and the mallakhamb practice group scored 11.83. The obtained F-ratio value of 17.25 for the post-test data is greater than the required table value of 3.35, indicating significance at the 0.05 level. Additionally, the adjusted post-test means for agility in the control, balancing asanas, and mallakhamb practice groups are 12.35, 11.50, and 11.77, respectively. The obtained F-ratio value of 65.82 for the adjusted post-test data is greater than the required table value of 3.37, indicating significance at the 0.05 level. These results suggest a significant difference among the groups in agility due to balancing asanas and mallakhamb practice. Scheffe's post- hoc test was used to determine the significant paired mean differences.

TABLE – 6. Analysis of Covariance for Pre and Post tests Data on Agility of Experimental and Control Groups

*Significance at .05 level, df 2 and 27= 3.35, 2 and 26=3.37

	Control	Balancing Asanas	Mallakhamb Practices	Source of Variance	Sum of Squares	df	Mean Squares	'F' Ratio
Pretest	12.09	11.73	12.01	Between	0.71	02	0.35	01.54
				Within	6.28	27	0.23	
Post test	12.47	11.32	11.83	Between	6.64	02	3.32	17.25*
				Within	5.20	27	0.19	
Adjusted Post test	12.35	11,50	11.77	Between	3.43	02	1.71	65.82*
				Within	0.67	26	0.03	

TABLE – 7. Ordered Scheffe's Post Hoc Test for Mean Difference between Groups on Agility

Mean values			MD	CI
Control	Balancing Asanas	Mallakhamb practices		
12.35	11.50	-	0.84	0.18
12.35	-	11.77	0.57	0.18
-	11.50	11.77	-0.27	0.18

Table 7 displays the ordered weighted mean difference values from Scheffe's post-hoc test, focusing on the agility scores of the control group, balancing asanas group, and mallakhamb practice group. The results indicate significant differences in agility scores at a confidence level of 0.05. Specifically, the table highlights the mean differences in agility scores between the control group and the balancing asanas group, as well as between the control group and the mallakhamb practice group. These differences in means provide insight into the impact of balancing asanas and mallakhamb practice on agility compared to the control group.

4. CONCLUSION

It seems there was a slight mix-up in the phrasing. If you meant to state that there was a significant difference in speed and agility among all the groups, then your statement is correct based on the data and analysis you provided. 1. It can be concluded that there was a significant improvement in speed and agility as a result of practicing balancing asanas and mallakhamb compared to the control group. This suggests that these training methods can effectively enhance speed and agility among school athletes. 2. These conclusions suggest that both balancing asanas and mallakhamb practice have a positive impact on speed and agility compared to the control group. 3. The research study primarily focused on female participants. To further generalize the findings and explore potential gender differences, future research could replicate the study with male participants. This would provide insights into the efficacy of balancing asanas and mallakhamb practice in improving speed and agility among male athletes.

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