

Effect of Yoga to Enhance the Performance of Middle Distance Runners in Athletics

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Abstract: *Middle-distance running events are track races longer than sprints, up to 3000 meters. The standard middle distances are the 800 meters, 1500 meters, and mile run, although the 3000 meters may also be classified as a middle-distance event. The 1500 m came about as a result of running 3+3/4 laps of a 400 m outdoor track or 7+1/2 laps of a 200 m indoor track, which were commonplace in continental Europe in the 20th century. In modern competitive sports, the psychological preparation of a team is as important as teaching them the different skills of a game with scientific methods. These days, the teams are prepared not only to play but to win the games. And for winning the games, it is not only the proficiency in the skills which matters but also the spirit and attitude of the players with which they play and health-related fitness requires desirable levels of cardiovascular fitness, percentage body fat, flexibility, and endurance. These help to prevent the incidence and severity of degenerative types of disease and increase work efficiency. Cardiovascular fitness refers to the efficiency of the lungs and heart. Muscular strength and endurance are the capacity of the muscles to work against the resistance for a longer time. Flexibility is the ability to move a joint freely through its complete range of movement. Percentage of body fat refers to the proportion of an individual's total body fat. Earlier research showed that Yoga is the best way for balance in physical and mental fitness and it also increases players' performance in middle-distance runners through improved motor ability. A hypothesis has been constructed to meet the objectives of the proposed research work showing the significant effect of yoga practices to enhance the performance of middle-distance runners in athletics. This work was experimental-based research. The proposed research is on samples were randomly selected boys from JN Stadium, New Delhi. The selected age groups of the subjects were from 18 to 25 years. In each group, 30 subjects were selected. In all, 60 subjects were tested initially and the same 60 subjects were tested finally after two months with the training imparted on them. After comparing the mean and standard deviation it is observed that Yoga intervention was found useful to enhance the performance of middle-distance runners in athletics.*

Keywords: Yoga, Athletics, Middle-distance runner, Pranayama, Meditation

1. Introduction

Yoga is more than a physical exercise. Yoga means "union" and leads to an integration of mind and body. It facilitates change based on the principles of reflection, integrity and awakening. Central to the practice is vision and transformation. Hatha yoga is traditionally made up of asana (posture) practice, pranayama and bandha/mudra work. Often the asana practice is referred to as hatha yoga and there are now a multitude of different styles of hatha yoga being taught.

Yoga is a physical, mental, and spiritual practice or discipline which originated in India. There is a broad variety of schools, practices, and goals in Hinduism, Buddhism and Jainism. Among the most well-known types of yoga are hatha yoga and Raja yoga.

Sport of athletics:

The **sport of athletics** is an exclusive collection of sporting events that involve competitive running, jumping, throwing, and walking. The most common types of athletics competitions are track and field, road running, cross country running, and race walking.

Middle distance running Events:-

Middle-distance running events are track races longer than sprints, up to 3000 metres. The standard middle distances are the 800 metres, 1500 metres and mile run, although the 3000 metres may also be classified as a middle-distance event. The 1500 m came about as a result of running 3+3/4

laps of a 400 m outdoor track or 7+1/2 laps of a 200 m indoor track, which were commonplace in continental Europe in the 20th century.

Statement of the Problem

The present research problem has been stated as: "Effect of Yoga to enhance the performance of middle distance runners in athletics".

Objectives of the Study

Objectives: The main objective of the study will be- To study the effect of Yoga: Enhance the performance of middle distance runners in athletics".

Hypothesis of the Study

The following research hypothesis has been constructed to meet the objectives of proposed research work:

There would be significant effect of yoga to enhance the performance of middle distance runners in athletics.

Research Methodology

The proposed research work is an experimental based research.

2. Research Sample

The proposed research is on sample of 60 boys was taken randomly from JN Stadium New Delhi under the guidance of Avneesh Sir (Athletics Coach, SAI). The selected age groups of the subjects were from 18 to 25 years.

Dependent Variables and Tools Used

Before and after experiment following variables were assessed considering standard tests.

Selected Variables and Tools used

Sr. No.	Test Name	Tools Used	Measurement units
1	Flexibility	Sit & Reach	cm.
2	Cardiovascular Endurance	1 Mile Run	Min Sec.
3	Agility	Shuttle Run	Min Sec.
4.	Strength and anaerobic power	Vertical Jump	Inches

3. Study Procedure

In all, 60 subjects were tested initially and the same 60 subjects were tested finally after two months with training imparted on them. We divided subjects equally in 2 groups, Here group B is Controlled group and A is Experimental. After the pre test was over, all the subjects of Group A were exposed to a practice of Speed, Agility, Flexibility and Endurance (Pull Up, Sit up and Standing Broad Jump) and Group B participated in the training of Speed, Agility, Flexibility and Endurance (Pull Up, Sit up and Standing Broad Jump) followed by Yoga. This indicates that the subjects of both the groups were participated in training, which is common. This common training was imparted for both the groups for 1 hr. daily in the evening except Mondays and holidays. However, after completion of 1 hr. training, whereas Group A underwent 30 minutes of yoga practices. Thus, duration of training / day was 90 minutes in the evening for 6 days in a week for a total period of 8 weeks.

Description of Training Interventions

The Static Stretching method is a simple method for increasing range of movement around joints. Where muscle groups are tight (shortened), they can constrain full movement range, especially after intensive activity or training. Slowly stretching the muscle through to its full range and holding the position returns the muscle to its full length. The method requires a segment to be moved slowly and gently to the limit of its full movement and then the position is held for at least thirty seconds and may be held for up to a minute. Following static stretches were included as part of training for participants of Group A subject: Bhujangasana (The Cobra posture), Ardha-Shalabhasana (Half Locust Pose), Ardhalasana (Half Plough Pose), Vakrasana (Twisting pose), Chakrasana (Wheel Pose), Deep Relaxation Technique, Kapalabhati Kriya, Anuloma-Viloma Pranayama, Cooling Pranayama-Beak Breath, Ujjayi Pranayama: Ocean Sounding Breath, Bhramri Pranayama, Om Chanting.

Statically model for presentation of data

Variables (A)	Groups			
	Yoga Training Group (B)		Control Group (C)	
	B1 (pre)	B2 (post)	C1 (pre)	C2 (post)
Flexibility (A1)	(A1 B1)	(A1 B2)	(A1 C1)	(A1 C2)
Cardiovascular Endurance (A2)	(A2 B1)	(A2 B2)	(A2 C1)	(A2 C2)
Agility (A3)	(A3 B1)	(A3 B2)	(A3 C1)	(A3 C2)
Strength and anaerobic power (A4)	(A4 B1)	(A4 B2)	(A4 C1)	(A4 C2)

4. Summary / Conclusion

For **Flexibility (A1)**, indicates that the pre-test performance scores of the Athletics plus Yoga training group and Athletics group were 10.72 (SD=2.05) and 10.88 (SD=2.03) respectively. This result indicates that the pre test means of Athletics plus Yoga training group and Athletics group in **Flexibility** test were more or less similar.

However, post-test performance scores of the Athletics plus Yoga training group and Athletics group were 14.12 (SD=2.79) and 10.6 (SD=2.) respectively. This result indicates that the post-test means of both the Yoga training group and Athletics group in Flexibility were different.

For **Cardiovascular Endurance (A2)** indicates that the pre-test performance scores of the Athletics plus Yoga training group and athletics group were 6.97 (SD=0.69) and 7.01 (SD=0.65) respectively. This result dictates that the pre-test means of Athletics plus Yoga training group and Athletics group in **Cardiovascular Endurance** test were more or less similar.

However, post-test performance scores of the Athletics plus Yoga training group and Athletics group were 6.40 (SD=0.66) and 7.02 (SD=0.67) respectively. This result indicates that the post-test means of both the Athletics plus Yoga training group and Athletics group in Cardiovascular Endurance were different.

For **Agility (A3)**, indicates that the pre-test performance scores of the Athletics plus Yoga training group and Athletics group were 110.36 (SD=10.02) and 110.23 (SD=7.66) respectively. This result indicates that the pre test means of Athletics plus Yoga training group and Athletics group in **Shuttle Run** were more or less similar.

However, post-test performance scores of the Athletics plus Yoga training group and Athletics group were 108.80 (SD=16.15) and 110.09 (SD=7.53) respectively. This result indicates that the post-test means of both the Athletics plus Yoga training group and Athletics group in shuttle run were different.

For, **Strength and anaerobic power (A4)** indicates that the pre-test performance scores of the Athletics plus Yoga training group and Athletics group were 35.88 (SD=5.26) and 35.72 (SD=3.01) respectively. This result indicates that the pre-test means of Athletics plus Yoga & Pranayama training group and Athletics group in **Strength and anaerobic power** test were more or less similar.

However, post-test performance scores of the Athletics plus Yoga training group and Athletics group were 40.36 (SD=4.94) and 35.36 (SD=3.24) respectively. This result indicates that the post-test means of the Athletics plus Yoga training group and Athletics group in Strength and anaerobic power were different.

On the basis of overall result and discussion as presented above, this study indicates that Yoga intervention was found useful to enhance the performance of middle distance runners in athletics.

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