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EFFECT OF YOGIC PRACTICE ON PHYSICAL FITNESS VARIABLES AMONG SCHOOL LEVEL CRICKET PLAYERS

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ABSTRACT
The present study was conducted to investigate the effect of selected yogic practices on physical fitness variables among school-level cricket players. Cricket is a sport that demands flexibility, endurance, strength, agility, and overall physical fitness for optimal performance. Yogic practices are increasingly recognized as an effective supplementary training method for improving athletic performance. The study was conducted on 100 male school cricket players divided into two age groups: 50 players aged 12–15 years and 50 players aged 16–19 years. A twelve-week yogic practice programme consisting of selected asanas, pranayama, and meditation techniques was administered. Selected physical fitness variables such as flexibility, cardio-respiratory endurance, abdominal strength, agility, upper back strength, and lower back strength were assessed before and after the training programme. Mean, standard deviation, and paired t-test were employed for statistical analysis. The results revealed significant improvements in most physical fitness variables following yogic practice. Significant enhancement was observed in cardio-respiratory endurance, agility, upper back strength, and lower back strength among 12–15 years players, while flexibility, cardio-respiratory endurance, abdominal strength, upper back strength, and lower back strength improved significantly among 16–19 years players. The findings indicate that yogic practices can be effectively integrated into cricket training programmes to enhance physical fitness and sports performance.

INTRODUCTION
Sports performance depends upon a combination of physical, physiological, and psychological fitness. Cricket, one of the most popular sports worldwide, requires players to possess high levels of endurance, agility, flexibility, muscular strength, coordination, and concentration. School-level cricketers often face considerable physical demands due to intensive training schedules and competitive participation.

Yoga, an ancient Indian system of physical and mental discipline, has gained recognition as an effective method for improving athletic performance. Yogic practices include asanas, pranayama, and meditation, which contribute to improved flexibility, muscular strength, respiratory efficiency, neuromuscular coordination, and mental stability.

The incorporation of yogic practices into sports training programmes has been shown to enhance performance, reduce injury risk, and improve recovery. Therefore, the present investigation was undertaken to examine the effectiveness of yogic practices on selected physical fitness variables among school-level cricket players.

OBJECTIVES OF THE STUDY
1. To determine the effect of yogic practices on flexibility among school-level cricket players.
2. To examine the effect of yogic practices on cardio-respiratory endurance.
3. To evaluate the influence of yoga on abdominal strength.
4. To assess the effect of yogic practices on agility.
5. To determine the effect of yoga on upper back strength and lower back strength.

HYPOTHESES
1. Yogic practices will significantly improve flexibility among school cricket players.
2. Yogic practices will significantly improve cardio-respiratory endurance.
3. Yogic practices will significantly improve abdominal strength.
4. Yogic practices will significantly improve agility.
5. Yogic practices will significantly improve upper and lower back strength.

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METHODOLOGY

Selection of Subjects

The study was conducted at Government Model Senior Secondary Schools, Chandigarh. A total of 100 male school cricket players were randomly selected and divided into two age groups:

- 50 School Cricket Players (12–15 years)
- 50 School Cricket Players (16–19 years)

Training Programme

The selected subjects participated in a structured yogic practice programme for twelve weeks. Training sessions were conducted daily at 6:30 a.m.

Selected Yogic Practices

- Surya Namaskar
- Tadasana
- Vrikshasana
- Garudasana
- Trikonasana
- Parshvakonasana
- Veerabhadrasana
- Padangusthasana
- Ushtrasana
- Bhujangasana
- Dhanurasana
- Chakrasana
- Chaturanga Dandasana
- Ardha Navasana
- Padmasana
- Veerasana
- Supta Veerasana
- Gomukhasana
- Baddha Konasana
- Janu Shirshasana
- Marichyasana-I
- Paschimottanasana
- Shirsasana
- Halasana
- Sarvangasana
- Shavasana
- Pranayama and Meditation

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PROCEDURE FOR ADMINISTRATION OF TESTS

Table:01-Variables Selected and Test used for their measurements

Physical Fitness Variable	Test Used
Flexibility	Sit and Reach Test
Agility	Shuttle Run Test
Muscular Endurance	Sit-Up Test
Balance	Stork Stand Test
Cardiovascular Endurance	12-Minute Run/Walk Test

STATISTICAL TECHNIQUE

The collected data were analyzed using mean, standard deviation, and t-test to determine the significance of differences between pre-test and post-test scores.

RESULTS AND DISCUSSION

The results revealed that the experimental group showed significant improvement in all selected physical fitness variables after the yogic training program.

Table 02: Descriptive statistics& t - value of chosen physical variables in 12-15years school cricket players and 16-19years school cricket players

SI. No.	Particulars	12-15years School Cricket Players					16-19years School Cricket Players				
		Pre yogic practice		Post yogic practice		't' score	Pre yogic practice		Post yogic practice		't' score
		Mean	SD	Mean	SD		Mean	SD	Mean	SD	
1	Flexibility	2.77	2.13	3.37	3.42	1.87	4.26	5.41	7.04	7.15	2.19*
2	Cardio Respiratory Endurance	2.78	2.15	4.13	3.63	2.73*	2.12	2.45	3.64	3.76	2.41*
3	Abdominal strength	2.11	2.53	3.04	3.25	1.57	2.28	2.98	8.07	8.24	4.67*
4	Agility	1.82	2.37	7.00	7.21	4.84*	3.50	3.75	4.18	4.35	0.84
5	Upper Back Strength	1.69	2.80	7.42	7.61	4.98*	0.68	1.76	6.80	6.97	6.06*
6	Lower Back Strength	2.76	3.75	7.42	7.61	3.88*	2.06	2.99	6.86	7.07	4.40*

The above-mentioned table indicated that initially there existed low level of physical among all chosen physical variables in12-15years School Cricket Players and 16-19years School Cricket Players. It could be observed that the average score in all the chosen variables in12-15years School Cricket Players and 16-19years School Cricket Players were less than half of the maximum score what they could have actually scored. The results also determined that improvement could be seen in all chosen physical variables of 12-15years School Cricket Players and 16-19years School Cricket Players after implementation of the yogic practice program of twelve-week duration with selected yogic practices. Significant improvement was also observed in the Physical variables i.e., flexibility, Cardio Respiratory Endurance strength, lower abdominal strength, upper back strength, and lower back strength among 12-15years School Cricket Players and Cardio Respiratory Endurance strength, lower abdominal strength, upper back strength and lower back strength among 16-19years School Cricket Players. In spite of the result with non-significant difference in the t - value of flexibility and abdominal strength of 12-15years School Cricket Players and agility of 16-19years School Cricket Players, but there was a also found that in terms of mean score, slender vertical improvement was determined as a resultant of yogic practice with yogic practices.

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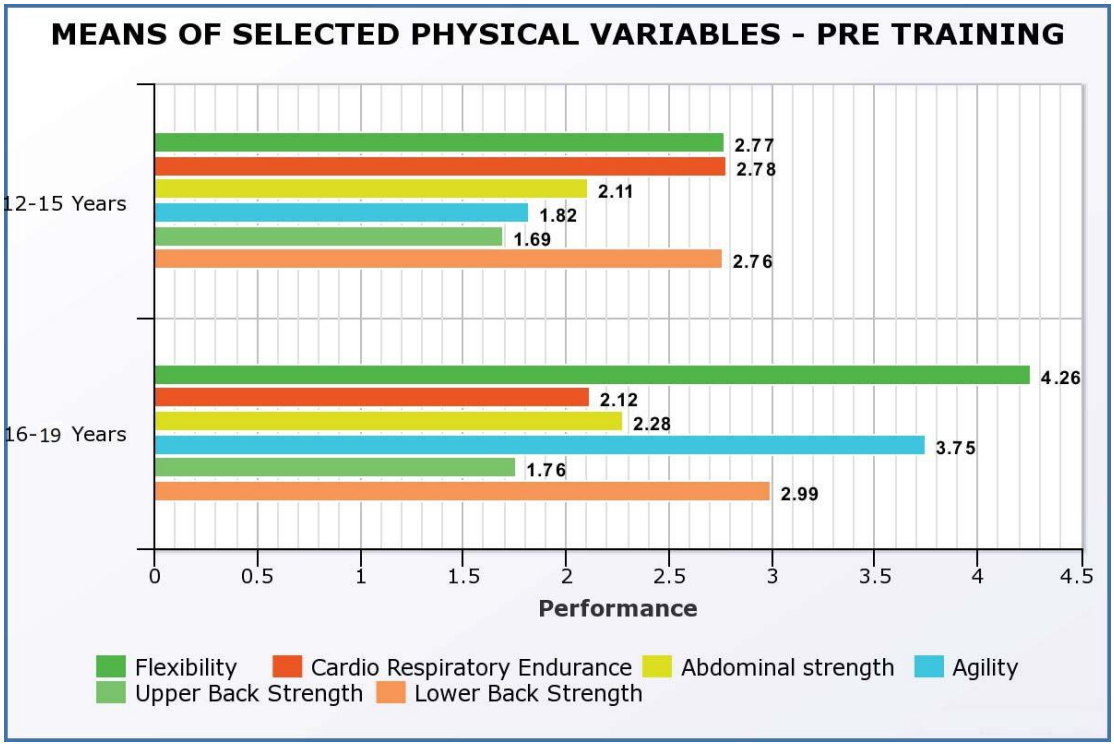

Fig. 01: Comparison of mean values of Pre-Training of chosen physiological variables in 16-19years School Cricket Players and 12-15years School Cricket Players

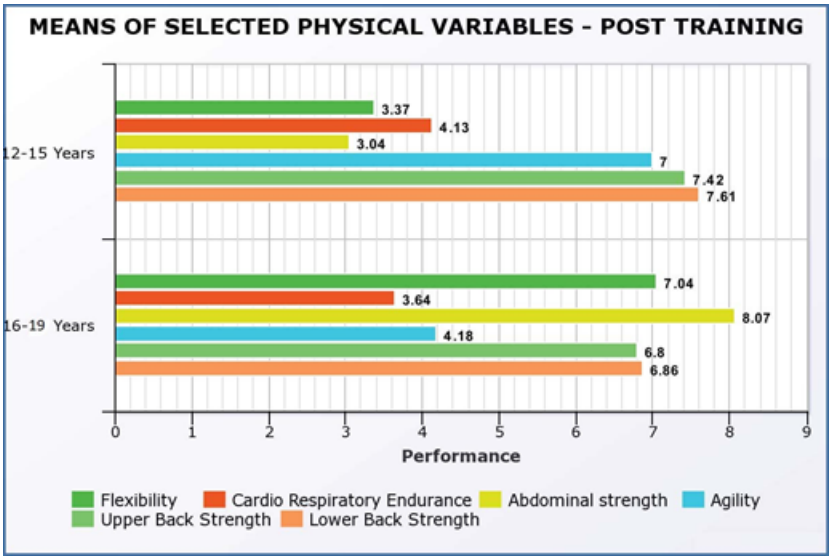

Fig. 02: Comparison of Post Training mean values of Physical variables among 12-15years School Cricket Players and 16-19years School Cricket.

The above table indicated that the values of the standard deviation, mean & calculated t - value of chosen psychological, physiological and physical variables in the secondary school children. In terms of physical variables,12-15years School Cricket Players indicated significant difference in 't' value of variables as cardio-respiratory endurance strength of leg, lower abdominal strength, upper back strength and lower back strength. Further, it was noted that no significant difference was found in 't' value of variables of flexibility and abdominal strength of 12-15years School Cricket Players. In the terms of physical variables of 16-19years School Cricket Players, flexibility, cardio-respiratory endurance strength of leg, lower abdominal strength, upper back strength and lower back strength have shown significant difference in their 't' value. In agility variables, it was found that no significant difference was noted but there was an improvement in the average scores. In the physiological variables of girls and 16-19years School Cricket Players have indicated that no significant difference was noted in the 't' value. In psychological variables 12-15years School Cricket Players have shown significant difference in dominance, rejection, isolation and differentiation. The acceptance, cooperation, identification and submission have shown no significant difference. Among 16-19years School

Cricket Players in rejection, isolation, differentiation and submission, 't' values indicated significant difference in variables as acceptance, cooperation, identification and dominance; and also indicated no significant difference in terms of their 't' values.

INTERPRETATION OF RESULTS

The findings indicate that yogic practices produced positive improvements in all selected physical fitness variables in both age groups.

Among 12–15 years school cricket players, significant improvements were observed in cardio-respiratory endurance, agility, upper back strength, and lower back strength. Improvements in flexibility and abdominal strength were observed but were not statistically significant.

Among 16–19 years school cricket players, significant improvements were observed in flexibility, cardio-respiratory endurance, abdominal strength, upper back strength, and lower back strength. Agility showed improvement in mean scores; however, the t-value was not statistically significant.

These findings suggest that systematic yogic practice contributes substantially to enhancing muscular strength, endurance, flexibility, and overall physical fitness among school-level cricket players.

MAJOR FINDINGS

1. Significant improvement was found in cardio-respiratory endurance among both age groups.
2. Agility improved significantly among 12–15 years cricket players.
3. Flexibility improved significantly among 16–19 years cricket players.
4. Upper back strength improved significantly in both age groups.
5. Lower back strength improved significantly in both age groups.
6. Abdominal strength improved significantly among 16–19 years players.
7. Yogic practices positively influenced overall physical fitness of school cricket players.

CONCLUSION

Based on the findings of the study, it may be concluded that a twelve-week yogic practice programme significantly enhances selected physical fitness variables among school-level cricket players. The results demonstrate that yogic practices are particularly effective in improving cardio-respiratory endurance, muscular strength, flexibility, and agility.

The study supports the inclusion of yoga as a supplementary training method in cricket coaching programmes. Regular practice of yogic exercises can contribute to better physical preparedness, improved performance, and overall athletic development among school cricket players.

REFERENCES

Adling, R. B., & Bangar, D. B. (2017). Effect of eight weeks aerobic exercises on physical and physiological variables among college men. *International Journal of Physiology, Nutrition and Physical Education*, 2(1), 103–106.

Bhavanani, A. B. (2014). Yoga and Sports Performance. *International Journal of Yoga*, 7(2), 89–95.

Gharote, M. L. (2013). *Applied Yoga*. Lonavla Yoga Institute.

Iyengar, B. K. S. (2005). *Light on Yoga*. HarperCollins Publishers.

Joshi, B. P. (2003). Effect of Some Yogic Practice on Human Subjects (Physiological & Psychological). Proceedings of International Conference on Prana-Anveshan, Bangalore.

Sharma, R., & Verma, P. (2020). Yoga Training and Athletic Performance among Adolescents. *International Journal of Physical Education and Sports*, 5(1), 22–27.

Singh, A. (2018). Impact of Yogic Practices on Physical Fitness Variables among Athletes. *Journal of Sports Sciences*, 6(2), 45–50.

Swami Kuvalayananda. (2009). *Pranayama*. Kaivalyadhama Publications.

Tran, S., Holly, R., Lashbrook, J., & Amsterdam, E. (2001). Effects of Hatha Yoga Practice on Physical Fitness. *Preventive Cardiology*, 4(4), 165–170.