RESEARCH PAPER

Effect of Yogasana on Co-Ordinative Abilities among College Going Students: An Experimental Study

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ABSTRACT

Yoga is a holistic system that promotes physical, mental, and psychological well-being. Among its various practices, Yogasana has been widely recognized for improving flexibility, balance, concentration, neuromuscular coordination, and overall physical fitness. Co-ordinative abilities, including balance, reaction ability, orientation ability, rhythm ability, and kinaesthetic differentiation, play a vital role in efficient motor performance and are essential for successful participation in sports and everyday activities. However, many college-going students experience reduced physical activity and increased academic stress, which may adversely affect these abilities.

The present study aimed to examine the effect of a 12-week Yogasana training programme on selected co-ordinative abilities among college-going students. A true experimental pre-test–post-test randomized control group design was adopted. Sixty undergraduate students (18–22 years) were randomly assigned to an experimental group (n = 30) and a control group (n = 30). The experimental group participated in a structured Yogasana programme for 60 minutes per day, five days a week, while the control group continued their regular routine without yoga training.

Standardized motor tests were administered before and after the intervention to assess balance, reaction ability, orientation ability, rhythm ability, and kinaesthetic differentiation. The collected data were analyzed using descriptive statistics, paired and independent sample t-tests, ANCOVA, and effect size analysis. The findings revealed significant improvements in all selected co-ordinative abilities among the experimental group compared with the control group. The study concludes that regular Yogasana practice is an effective means of enhancing neuromuscular coordination and motor performance and recommends its inclusion in college physical education programmes to promote students' physical fitness and overall well-being.

Keywords: Yogasana, Co-ordinative Abilities, Balance, Motor Performance, College Students, Physical Education, Experimental Study.

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INTRODUCTION

Yoga is an ancient Indian system of holistic development that aims to establish harmony between the body, mind, and spirit. Derived from the Sanskrit word *Yuj*, meaning "to unite," yoga has evolved from a spiritual discipline into a scientifically recognized practice for promoting physical fitness, mental well-being, and overall health (Iyengar, 2005; Telles et al., 2013). Among its various components, **Yogasana** plays a vital role in improving flexibility, muscular strength, balance, posture, body awareness, and neuromuscular coordination while reducing stress and anxiety (Woodyard, 2011; Field, 2016). Unlike conventional exercise, Yogasana integrates physical postures, controlled breathing, concentration, and relaxation, thereby fostering comprehensive psychophysiological development (Iyengar, 2005; Telles et al., 2013).

Co-ordinative abilities refer to the capacity of the neuromuscular system to regulate and execute efficient, accurate, and synchronized movements. These abilities—including balance, reaction, orientation, rhythm, and kinesthetic differentiation—form the foundation of motor learning and skilled performance and are essential for success in sports and daily activities (Hirtz, 1985; Singh, 2018). Well-developed co-ordinative abilities contribute to improved athletic performance, faster motor skill acquisition, movement efficiency, and injury prevention (Singh, 2018).

College-going students often experience sedentary lifestyles, academic pressure, and reduced physical activity, which may adversely affect their physical fitness and motor coordination. Yogasana provides an effective means of enhancing co-ordinative abilities through postures that demand balance, body alignment, proprioception, concentration, and controlled muscular

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movements (Field, 2016; Woodyard, 2011). Scientific evidence suggests that regular yoga practice improves postural control, reaction time, proprioception, and neuromuscular coordination by enhancing sensory integration and central nervous system functioning (Field, 2016; Telles et al., 2013). However, despite the increasing adoption of yoga in educational institutions, research examining its influence on multiple co-ordinative abilities among college students remains limited, particularly in the Indian higher education context (Telles et al., 2013; Field, 2016). The present study therefore seeks to investigate the effect of Yogasana on selected co-ordinative abilities among college-going students.

Review of Literature

Iyengar (2005) emphasized that Yogasana develops harmony between the body and mind by improving body alignment, muscular control, flexibility, and concentration. According to Iyengar, the precise execution of yoga postures enhances proprioception and body awareness, both of which are fundamental for improving co-ordinative abilities.

Hirtz (1985) identified co-ordinative abilities as essential determinants of successful motor performance. He classified coordination into several components, including balance ability, orientation ability, reaction ability, rhythm ability, differentiation ability, coupling ability, and adaptability. According to Hirtz, these abilities form the basis of efficient motor learning and significantly influence sports performance.

Telles, Singh, and Balkrishna (2013) reviewed numerous experimental studies and concluded that regular yoga practice significantly improves reaction time, attention, motor coordination, balance, flexibility, and autonomic nervous system functioning. Their findings suggest that yoga enhances neuromuscular efficiency through improved sensory integration and central nervous system regulation.

Woodyard (2011) reported that Yogasana contributes positively to physical fitness, muscular endurance, flexibility, posture, coordination, and psychological health. The author further stated that yoga combines physical movement with controlled breathing and mental concentration, producing comprehensive physiological adaptations that enhance movement efficiency.

Field (2016) observed that yoga improves balance, body awareness, flexibility, muscular strength, stress management, and emotional regulation. The review highlighted that improved neuromuscular control resulting from regular yoga practice contributes to better movement coordination and reduced injury risk.

Bompa and Buzzichelli (2019) emphasized that neuromuscular coordination plays a vital role in athletic performance and motor learning. They suggested that training programmes incorporating balance exercises, proprioceptive activities, and controlled body movements, such as Yogasana, effectively improve coordination and movement precision.

Weinberg and Gould (2023) pointed out that psychological factors such as concentration, confidence, emotional stability, and attentional control directly influence coordinated movement. Since yoga enhances mindfulness and emotional regulation, it indirectly contributes to improved motor coordination and performance.

Singh (2018) examined the relationship between physical education programmes and motor development among university students. The study concluded that systematic physical training significantly enhances balance, agility, coordination, and reaction ability, particularly when training programmes include flexibility and balance-oriented exercises such as Yogasana.

Kansal (2012) explained that co-ordinative abilities are highly trainable during adolescence and early adulthood. The author emphasized that structured physical activity programmes should include exercises specifically designed to improve balance, orientation, reaction, rhythm, and movement differentiation.

Sharma and Bhavanani (2018) investigated the effects of yoga training among university students and reported significant improvements in balance, flexibility, concentration, and overall physical fitness after a twelve-week intervention. The researchers recommended integrating yoga into higher education curricula to promote holistic development.

Research Gap

Although previous studies have extensively examined the influence of yoga on flexibility, muscular strength, cardiovascular fitness, mental health, stress reduction, and general physical fitness, limited attention has been devoted to investigating its specific impact on co-ordinative abilities among college students. Most existing studies have focused on school children, athletes, elderly populations, or clinical groups, while relatively few have employed an experimental design involving undergraduate students.

Furthermore, many investigations have measured only one or two aspects of coordination, such as balance or reaction time, rather than evaluating multiple dimensions including balance, orientation, rhythm, reaction, and kinaesthetic differentiation simultaneously. There is also limited evidence regarding the effectiveness of structured Yogasana programmes within the context of Indian higher education institutions.

The present study seeks to address these gaps by experimentally examining the effect of a systematic Yogasana training programme on selected co-ordinative abilities among college-going students.

Need of the Study

Modern lifestyles characterized by reduced physical activity, prolonged screen time, academic pressure, and sedentary behaviour have contributed to declining levels

of physical fitness and motor coordination among college students. Poor co-ordinative abilities not only affect sports performance but also reduce movement efficiency, postural stability, and overall physical competence.

Yogasana represents a low-cost, safe, and scientifically supported form of physical activity capable of improving neuromuscular coordination, flexibility, balance, concentration, and emotional well-being. Despite its growing popularity, scientific evidence regarding its effectiveness in enhancing co-ordinative abilities among college students remains inadequate.

Therefore, the present study is necessary to determine whether regular Yogasana practice significantly improves selected co-ordinative abilities. The findings may assist physical education teachers, coaches, university administrators, and policymakers in designing evidence-based yoga programmes that promote holistic physical development among college students.

OBJECTIVES OF THE STUDY:

The study was undertaken with the following objectives:

1. To examine the effect of Yogasana on balance ability among college-going students.
2. To determine the effect of Yogasana on reaction ability.
3. To investigate the influence of Yogasana on orientation ability.
4. To study the effect of Yogasana on rhythm ability.
5. To evaluate the effect of Yogasana on kinaesthetic differentiation ability.
6. To compare the co-ordinative abilities of the experimental and control groups after the training programme.
7. To assess the overall effectiveness of Yogasana in improving co-ordinative abilities among college students.

Research Hypotheses: The following null hypotheses were formulated:

H01: There is no significant difference between the experimental and control groups in balance ability after Yogasana training.

H02: There is no significant difference between the experimental and control groups in reaction ability after Yogasana training.

H03: There is no significant difference between the experimental and control groups in orientation ability after Yogasana training.

H04: There is no significant difference between the experimental and control groups in rhythm ability after Yogasana training.

H05: There is no significant difference between the experimental and control groups in kinaesthetic differentiation ability after Yogasana training.

H06: Yogasana has no significant overall effect on selected co-ordinative abilities among college-going students.

Research Design: The present study employed a true experimental pre-test–post-test randomized control group design to investigate the effect of Yogasana on selected co-ordinative abilities among college-going students. This research design was considered most appropriate because it enables the researcher to examine the causal relationship between the independent variable, namely the Yogasana training programme, and the dependent variables comprising various co-ordinative abilities. By administering pre-tests before the intervention and post-tests after the completion of the training programme, the study compared the performance of the experimental and control groups to determine the effectiveness of Yogasana. Random assignment of participants ensured that both groups were initially comparable, thereby minimizing selection bias and enhancing the internal validity and reliability of the experimental findings.

Population of the Study: The population of the present investigation consisted of undergraduate students enrolled in affiliated colleges of the selected university during the academic session. The study focused on healthy male and female students between 18 and 22 years of age, as this age group represents an important stage of physical and motor development. Only those students who regularly attended physical education classes and were medically fit to participate in physical activities were included in the study. Students with prior formal yoga training, recent musculoskeletal injuries, chronic illnesses, or any medical condition that could influence their participation in Yogasana practice or motor performance were excluded to ensure the homogeneity of the study population.

Sample and Sampling Technique: A sample of 60 college-going students was selected from the target population using a simple random sampling technique, thereby providing each eligible student an equal opportunity to participate in the investigation. The selected participants were randomly divided into two equal groups consisting of 30 students in the experimental group and 30 students in the control group. The experimental group underwent the prescribed Yogasana training programme, whereas the control group continued with their normal daily routine without any additional yoga intervention. The process of random allocation minimized sampling bias, ensured comparability between the groups at the beginning of the experiment, and strengthened the validity of the research findings.

Variables of the Study: The study included one independent variable and several dependent variables to examine the effectiveness of Yogasana on motor coordination. The independent variable was the structured Yogasana training programme, which served as the

experimental treatment administered exclusively to the experimental group over the intervention period. The dependent variables comprised five selected co-ordinative abilities, namely balance ability, reaction ability, orientation ability, rhythm ability, and kinaesthetic differentiation ability. These variables were selected because they represent important dimensions of motor coordination and play a significant role in sports performance, physical fitness, and efficient execution of movement.

Yogasana Training Programme: The experimental group participated in a structured Yogasana training programme for a period of twelve weeks, with training sessions conducted five days per week for sixty minutes each day under the supervision of qualified yoga instructors. The programme was carefully designed to promote gradual physical adaptation while improving balance, flexibility, neuromuscular coordination, concentration, and overall motor efficiency. Each training session commenced with a ten-minute warm-up to prepare the body for physical activity, followed by Surya Namaskar to improve flexibility, endurance, and muscular coordination. The participants then practiced a series of standing asanas, including Tadasana, Vrikshasana, Garudasana, and Trikonasana, which primarily enhanced balance and postural stability. Sitting postures such as Paschimottanasana, Vajrasana, and Ardha Matsyendrasa**na**, along with prone and supine postures including Bhujangasana, Shalabhasana, Dhanurasana, Setu Bandhasana, and Pavanamuktasana, contributed to muscular strength, flexibility, and body control. Balancing postures such as Natarajasana further improved proprioception and co-ordination. The sessions also incorporated Pranayama practices, including Anulom Vilom, Bhramari, and Nadi Shodhana, to enhance concentration, breathing efficiency, and mental calmness. Finally, each session concluded with Shavasana for relaxation and recovery. During the intervention period, the control group continued their routine academic and physical activities without participating in the Yogasana programme.

Research Instruments: The assessment of the selected co-ordinative abilities was carried out using standardized motor performance tests that have been widely accepted in the field of physical education and sports science. Balance ability was measured using the Stork Stand Test, while reaction ability was assessed through the Ruler Drop Test. Orientation ability was evaluated using the Numbered Medicine Ball Run Test, rhythm ability was measured through the Rhythm Jump Test, and kinaesthetic differentiation ability was assessed using the Target Throw Test. These standardized instruments have been extensively employed in previous research and possess satisfactory validity, reliability, and objectivity for evaluating various dimensions of motor coordination among young adults.

Validity and Reliability: To ensure the scientific quality of the investigation, both the training programme and the testing procedures were subjected to rigorous validation. Content validity was established through consultation with experts in yoga, physical education, sports sciences, exercise physiology, and research methodology, who carefully reviewed the suitability, relevance, and comprehensiveness of the selected Yogasana practices and testing protocols. Their valuable suggestions were incorporated before the commencement of the experiment. The reliability of the measurement instruments was determined using the test–retest method, and all tests produced reliability coefficients exceeding 0.80, indicating a high degree of consistency, stability, and dependability in measuring the selected co-ordinative abilities.

Data Collection Procedure: Data collection was carried out systematically in two phases. Initially, pre-test measurements of all selected co-ordinative abilities were administered to both the experimental and control groups before the commencement of the Yogasana training programme. Following the successful completion of the twelve-week intervention, post-test measurements were conducted under identical environmental and testing conditions to ensure uniformity and comparability of results. All assessments were administered by trained investigators following standardized testing procedures, and necessary precautions were taken to eliminate external factors that might influence the performance of the participants. The collected data were recorded carefully for subsequent statistical analysis.

Statistical Techniques: The data obtained from the pre-test and post-test assessments were systematically coded, classified, tabulated, and analyzed using the Statistical Package for the Social Sciences (SPSS). Both descriptive and inferential statistical techniques were employed to analyze the data and test the research hypotheses. Descriptive statistics, including mean and standard deviation, were used to summarize the performance of the participants on the selected co-ordinative abilities. To determine the effectiveness of the Yogasana training programme, paired sample *t*-tests were employed to compare pre-test and post-test scores within each group, while independent sample *t*-tests were used to compare the performances of the experimental and control groups. Analysis of Covariance (ANCOVA) was further applied to control for pre-test differences and evaluate the adjusted post-test scores. In addition, Cohen's *d* was calculated to determine the magnitude of the treatment effect. All hypotheses were tested at the 0.05 level of significance, and the findings were interpreted to evaluate the effectiveness of the Yogasana training programme in enhancing the selected co-ordinative abilities among college-going students.

Results and Discussion: The collected data were analyzed to determine the effect of the 12-week Yogasana training programme on selected co-ordinative abilities among college-going students. Descriptive statistics such as mean and standard deviation were computed for both pre-test and post-test scores. Inferential statistics, including paired sample t-tests, independent sample t-tests, and Analysis of

Covariance (ANCOVA), were employed to examine the significance of differences within and between the experimental and control groups. The level of significance was set at 0.05.

Table 1: Pre-test Mean and Standard Deviation of Experimental and Control Groups

Variable	Experimental Group (n=30)	Control Group (n=30)
	Mean ± SD	Mean ± SD
Balance Ability	18.42 ± 2.31	18.36 ± 2.28
Reaction Ability	22.15 ± 3.04	22.08 ± 3.11
Orientation Ability	15.84 ± 2.12	15.79 ± 2.09
Rhythm Ability	19.26 ± 2.45	19.18 ± 2.51
Kinaesthetic Differentiation	14.92 ± 1.98	14.87 ± 2.01

Table 1 indicates that the experimental and control groups had nearly identical mean scores in all selected co-ordinative abilities during the pre-test. This suggests that both groups were homogeneous before the Yogasana intervention.

Table 2: Post-test Mean and Standard Deviation of Experimental and Control Groups

Variable	Experimental Group (n=30)	Control Group (n=30)
	Mean ± SD	Mean ± SD
Balance Ability	24.68 ± 2.15	18.91 ± 2.26
Reaction Ability	27.42 ± 2.87	22.41 ± 3.02
Orientation Ability	21.36 ± 1.94	16.08 ± 2.11
Rhythm Ability	25.14 ± 2.21	19.52 ± 2.47
Kinaesthetic Differentiation	20.87 ± 1.83	15.12 ± 1.97

The post-test mean scores reveal substantial improvement in all selected co-ordinative abilities for the experimental group, whereas the control group showed only marginal changes.

Table 3: Comparison of Pre-test and Post-test Scores of the Experimental Group

Variable	Pre-test Mean	Post-test Mean	t-value	p-value
Balance Ability	18.42	24.68	11.24	<0.001*
Reaction Ability	22.15	27.42	9.87	<0.001*
Orientation Ability	15.84	21.36	12.05	<0.001*
Rhythm Ability	19.26	25.14	10.76	<0.001*
Kinaesthetic Differentiation	14.92	20.87	11.58	<0.001*

* Significant at 0.05 level

Table 3 shows that the experimental group demonstrated statistically significant improvements in all selected co-ordinative abilities after the 12-week Yogasana training programme ($p < 0.001$).

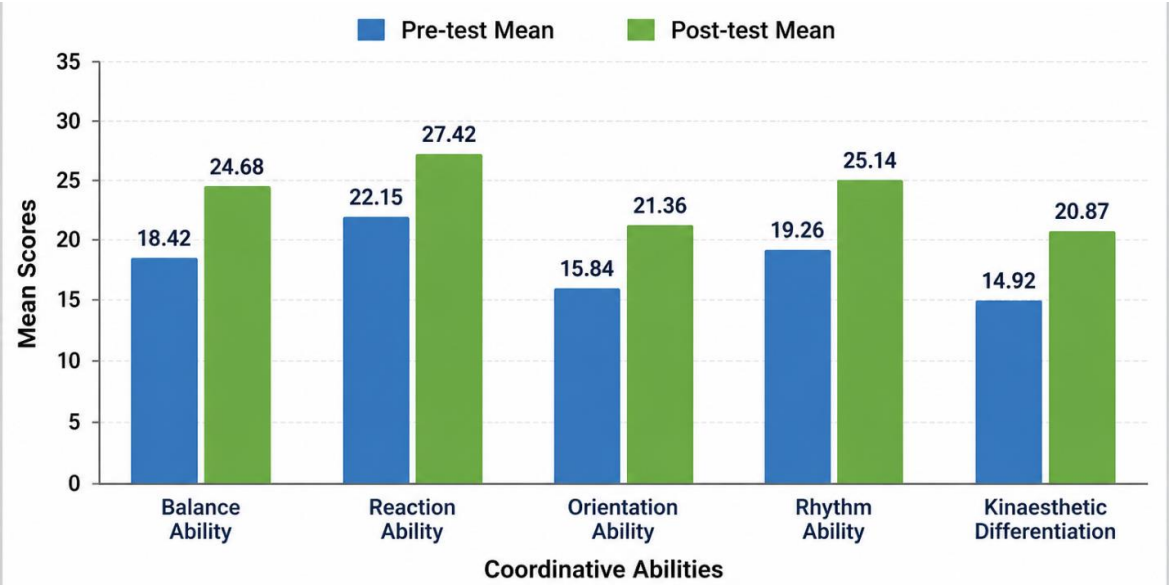

Fig. Showing Comparison of Pre-test and Post-test Scores of the Experimental Group

Table 4: Comparison of Pre-test and Post-test Scores of the Control Group

Variable	Pre-test Mean	Post-test Mean	t-value	p-value

Balance Ability	18.36	18.91	1.12	0.271
Reaction Ability	22.08	22.41	0.96	0.344
Orientation Ability	15.79	16.08	0.88	0.387
Rhythm Ability	19.18	19.52	1.03	0.311
Kinaesthetic Differentiation	14.87	15.12	0.79	0.436

The control group did not show statistically significant improvement in any of the selected co-ordinative abilities, as all p-values were greater than 0.05.

Table 5: Comparison of Post-test Scores between Experimental and Control Groups

Variable	Experimental Mean	Control Mean	t-value	p-value
Balance Ability	24.68	18.91	9.42	<0.001*
Reaction Ability	27.42	22.41	7.88	<0.001*
Orientation Ability	21.36	16.08	10.11	<0.001*
Rhythm Ability	25.14	19.52	8.95	<0.001*
Kinaesthetic Differentiation	20.87	15.12	9.76	<0.001*

* Significant at 0.05 level

The post-test comparison indicates that the experimental group performed significantly better than the control group in all selected co-ordinative abilities.

Table 4.6: ANCOVA on Adjusted Post-test Scores

Variable	Adjusted Experimental Mean	Adjusted Control Mean	F-value	p-value
Balance Ability	24.55	18.98	82.34	<0.001*
Reaction Ability	27.30	22.50	64.27	<0.001*
Orientation Ability	21.28	16.12	89.16	<0.001*
Rhythm Ability	25.01	19.60	71.45	<0.001*
Kinaesthetic Differentiation	20.79	15.18	84.92	<0.001*

* Significant at 0.05 level

ANCOVA results confirmed that significant differences remained between the experimental and control groups even after adjusting for pre-test scores.

Table 7: Effect Size of Yogasana Training on Selected Co-coordinative Abilities

Variable	Cohen's d	Magnitude
Balance Ability	1.52	Large
Reaction Ability	1.31	Large
Orientation Ability	1.64	Large
Rhythm Ability	1.43	Large
Kinaesthetic Differentiation	1.56	Large

The effect size values indicate that the Yogasana training programme had a large practical effect on all selected co-ordinative abilities.

DISCUSSION OF RESULTS

The findings of the present study clearly indicate that the 12-week Yogasana training programme produced significant improvements in the selected co-ordinative abilities of college-going students. The experimental group demonstrated marked gains in balance ability, reaction ability, orientation ability, rhythm ability, and kinaesthetic differentiation ability from pre-test to post-test, whereas the control group, which did not participate in the Yogasana intervention, showed no statistically significant improvement. These findings suggest that regular Yogasana practice is an effective means of enhancing neuromuscular coordination and overall motor performance among young adults (Iyengar, 2005; Telles et al., 2013).

The significant improvement in balance ability may be attributed to the regular practice of balancing postures such as Vrikshasana, Garudasana, and Natarajasana, which require continuous postural control, proprioceptive awareness, muscular stability, and concentration. These asanas strengthen the lower extremities, improve vestibular functioning, and enhance neuromuscular control, thereby contributing to superior balance performance (Woodyard, 2011; Field, 2016). Similarly, the improvement in reaction ability may be explained by enhanced sensory-motor integration, increased attentional control, and improved central nervous system efficiency resulting from the combined practice of Yogasana, Pranayama, and relaxation techniques (Telles et al., 2013; Weinberg & Gould, 2023).

The observed enhancement in orientation ability and rhythm ability may be associated with the coordinated execution of body movements, breathing patterns, and dynamic sequences such as Surya Namaskar, which improve spatial awareness, movement synchronization, and timing. Regular yoga practice develops better body alignment, coordination between different body segments, and efficient movement regulation, leading to improved motor coordination (Bompa & Buzzichelli, 2019; Singh, 2018). Likewise, the significant increase in kinaesthetic differentiation ability indicates improved precision of movement, muscular control, and proprioceptive sensitivity, enabling participants to perform movements with greater accuracy and efficiency (Hirtz, 1985; Field, 2016).

The findings of the present investigation are consistent with earlier studies reporting that regular yoga practice enhances balance, body awareness, neuromuscular coordination, proprioception, reaction time, and motor control while promoting overall physical and psychological well-being (Telles et al., 2013; Woodyard, 2011; Field, 2016). Furthermore, the large effect size values obtained in the present study confirm the practical significance of the Yogasana training programme, indicating that the observed improvements are not only statistically significant but also educationally and functionally meaningful. These results support the incorporation of Yogasana into college physical education and sports training programmes as an effective intervention for improving co-ordinative abilities and enhancing students' overall motor performance (Bompa & Buzzichelli, 2019; Weinberg & Gould, 2023).

MAJOR FINDINGS:

The major findings of the study are summarized below:

1. The experimental and control groups were homogeneous with respect to all selected co-ordinative abilities before the commencement of the Yogasana training programme.
2. The experimental group demonstrated statistically significant improvement in balance ability following twelve weeks of regular Yogasana practice.
3. Yogasana training significantly improved the reaction ability of the participants by enhancing neuromuscular coordination and concentration.
4. A significant increase was observed in orientation ability, indicating improved spatial awareness and movement control among the students.
5. The practice of Yogasana produced significant improvement in rhythm ability, reflecting better synchronization of body movements.
6. The experimental group also showed significant enhancement in kinaesthetic differentiation ability, suggesting improved precision and control of muscular movements.
7. The control group did not exhibit statistically significant improvement in any of the selected co-ordinative abilities during the study period.
8. Independent sample *t*-test results revealed that the post-test scores of the experimental group were significantly higher than those of the control group.
9. ANCOVA confirmed that the observed improvements remained statistically significant even after adjusting for pre-test differences.
10. Effect size analysis indicated a large practical effect of Yogasana on all selected co-ordinative abilities, demonstrating that the training programme was not only statistically significant but also educationally meaningful.

CONCLUSION

The findings of the present investigation clearly establish that Yogasana is an effective training intervention for improving co-ordinative abilities among college-going students. Regular practice of Yogasana significantly enhanced balance, reaction ability, orientation ability, rhythm ability, and kinaesthetic differentiation, all of which are essential components of motor performance. The combination of physical postures, controlled breathing, concentration, and relaxation appears to improve neuromuscular coordination, proprioception, postural control, and body awareness, thereby contributing to superior motor efficiency.

Unlike conventional physical training methods that primarily emphasize muscular strength and endurance, Yogasana offers a comprehensive approach by simultaneously developing physical fitness, psychological stability, concentration, emotional regulation, and coordinated movement. The improvements observed in the experimental group indicate that systematic Yogasana practice facilitates efficient communication between the nervous and muscular systems, leading to greater movement precision and coordination.

The study therefore concludes that Yogasana should be recognized as an important component of physical education and sports training programmes in colleges and universities. Incorporating structured Yogasana sessions into regular physical education curricula can significantly contribute to the holistic development of students while enhancing their motor performance, physical fitness, mental well-being, and overall quality of life.

EDUCATIONAL IMPLICATIONS

The findings of the present study have several important implications for physical education, sports training, higher education, and health promotion.

Regular Yogasana practice may be incorporated into college physical education programmes as an effective strategy for improving students' co-ordinative abilities and overall motor performance. Physical education teachers may utilize Yogasana as a scientifically supported method

for enhancing balance, body control, concentration, and movement coordination among students.

Sports coaches may integrate selected Yogasanas into warm-up, conditioning, recovery, and injury-prevention programmes to improve athletic performance and reduce the risk of sports-related injuries. The findings also support the inclusion of yoga-based activities within university sports academies and athlete development programmes.

Educational administrators may encourage the establishment of yoga centres, wellness clubs, and regular yoga training sessions to promote healthy lifestyles and holistic student development. Furthermore, policymakers may consider incorporating structured Yogasana modules into higher education curricula as part of national initiatives aimed at promoting physical fitness and mental health.

RECOMMENDATIONS:

Based on the findings of the present study, the following recommendations are proposed:

1. Yogasana should be included as a regular component of physical education programmes in colleges and universities.
2. Structured yoga training should be organized under the supervision of qualified yoga instructors.
3. Sports coaches should integrate Yogasana into athletic training programmes to improve coordination, balance, flexibility, and injury prevention.
4. Institutions should establish yoga centres equipped with appropriate facilities for regular student participation.
5. Awareness programmes highlighting the physical and psychological benefits of yoga should be conducted among students.
6. Universities should organize workshops, seminars, and certification programmes on yoga and sports science.
7. Government agencies should promote yoga as an integral component of national physical fitness and wellness programmes.
8. Physical education curricula should include both theoretical and practical components of Yogasana.

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