

Effect of Simplified Kundalini Yoga and Pranayama Practices on Selected Psychological Variables and Academic Performance of Secondary School Boys

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M. Yuvaraj

*Manavalakkalai Yoga Teacher, Bannari Amman Vidya Niketan
Sathyamangalam, Tamil Nadu, India*

Abstract

The study was undertaken to find out the effect of simplified Kundalini yoga and pranayama on academic performance and selected psychological variables among schoolboys on aggression. To achieve the purpose of the study, 45 students studying various Higher Secondary Schools at Erode District were selected as subjects. The age of the subjects ranged from 14 to 16 years. The subjects were divided into three groups of fifteen each (n=15) randomly. Experimental Group I underwent simplified Kundalini yoga, Experimental Group II underwent Pranayama, and Group III is Control group were kept under active rest. The training period is for three days per week for eight weeks, in addition to the school curriculum. All the subjects were tested on selected criterion variables prior and immediately after the training period. The result of the study that there is a significant difference in the adjusted post-test means of the simplified Kundalini yoga group and the pranayama practice group and control group. It was identified that the simplified yoga group is better than the pranayama group and control group in improving explosive strength.

Keywords: Simplified kundalini yoga, Pranayama, Aggression, Academic performance.

Introduction

In day to day life, only certain parts of the body are functioning according to the nature of work. All the parts of the body should function properly to maintain the body fit. It is necessary that a simplified exercise is a must to make the parts of the body function to a minimum level. There are many kinds of physical exercises in the world. Vethathiri Maharishi has chosen the best ones from around the world, analyzed them with his medical experience, practiced them for a long period, and enjoyed their benefits. Then he gave it to us as a simplified physical exercise. This exercise does not strain the body, consumes less time, and benefits are better.

“Physical body, life force, and mind are inter linked and
Inter connected in the existence of man.”

- Vethathiri Maharishi

Objectives of the Study

To find out the effect of simplified Kundalini yoga and pranayama practices on selected psychological variables and academic performance of school boys.

Statement of the Problem

In the modern world, there were many types of research going on to find out the way to improve their performances in the study and other skills of the students they were trying to find a medicine for this, but it may lead to side effects to the children. My view is to find a solution to this using simplified Kundalini yoga and pranayama practices for school children.

Hypotheses

1. It was hypothesized that there might be a significant improvement in Explosive Strength, Flexibility, Vital Capacity, Resting Pulse Rate, and academic achievements due to the Effect of simplified Kundalini yoga and Pranayama.
2. It was hypothesized that there might be a significant reduction in Aggression and Anxiety due to the Effect of simplified Kundalini yoga and Pranayama.

Delimitation

The study was delimited to the following.

1. To achieve the purpose of the study, forty-five boy's students studying various Higher Secondary Schools, Erode District, TamilNadu, India, during the year 2018-2019 was selected as subjects.
2. The age of the subjects ranged from 14 to 16 years.
3. The subjects were divided randomly into three groups of fifteen each (n=15). Group, I underwent simplified Kundalini yoga, Group II underwent Pranayama, and Group III acted as Control.
4. The duration of the training period was restricted to eight weeks, and the number of sessions per week was confined to three.
5. The dependent variables, Aggression, and Academic Performance were chosen for this study.
6. The selected criterion variables for the study were assessed by the following standardized test items. Aggression was assessed by Smith's Aggressive Questionnaire.
7. All the subjects' were undergone pre and post-test.

Limitation

- Psychological factors, food habits, rest periods, life style, etc., were not be controlled.
- The previous experience of the subjects in the field of sports and games, which might influence the training and data, were considered.
- The weather conditions, such as atmospheric temperature, humidity, and meteorological factors during testing and training periods, were considered.

Selection of Subjects

For the study, 45 boy students who are studying various Higher Secondary Schools at Erode District selected randomly have the subjects for this study. Their age is between 14 to 26 years.

Methodology

In this study, forty-five boy's studying various Higher Secondary Schools from Erode District were selected as subjects randomly and divided randomly into three groups fifteen each, namely Experimental Group I underwent Simplified Kundalini yoga (n=15), Experimental Group II underwent Pranayama, (n=15), and Control Group III kept under active rest (n=15). The training period is limited to 8 weeks and for three days per week.

Selected Variables for Experiment

Dependent Variables

- Aggression
- Academic Performance

List of Simplified Kundalini Yoga

- Hand Exercises-I
- Hand Exercises-II
- Breathing Exercises
- Eye Exercises
- Kayakalpa-I
- Kayakalpa-II
- Kayakalpa-III
- Kayakalpa Eve Ning-I
- Kayakalpa Eve Ning-II
- Leg Exercises

List of Pranayama

All the subjects in group II were practiced the following Pranayamas.

- Nadi suddhi Pranayama
- Bhastrika Pranayama
- Kapalbhati pranayama
- Bahya pranayama
- Anulomvilom pranayama
- Sheetali Pranayama
- Baramati pranayama

Aggression Test

Standardized Smith's questionnaire for sporting aggression was used to scale the aggressiveness.

The test consists of four questions, with five levels of responses. The level changes from ‘strongly disagree’ to ‘strongly agree.’ The respondents were made to encircle the approximate number, which suited their attitude.

The inventory was scored with the help of the scoring key given below. The range of scores was from 4 to 20. The higher the score, the more aggressive the player is.

Response	Scores
Strongly disagree	1
Disagree	2
Undecided	3
Agree	4
Strongly agree	5

Analysis of Covariance on Aggression of Experimental Groups and the Control Group

Adjusted Post-test Means			Source of Variance	Sum of Squares	df	Mean Squares	‘F’ Ratio
Simplified Kundalini Yoga Group (I)	Pranayama Practices Group (II)	Control Group (III)					
20.70	22.65	24.52	Between	109.54	2	54.77	26.20*
			Within	85.72	41	2.09	

* Significant at .05 level of confidence; (Aggression Scores in Numbers)

(The table value required for Significance at .05 level with df 2 and 41 is 3.23)

The table shows that the adjusted post-test mean value of Aggression for Simplified Kundalini yoga group, Pranayama Group, and the Control Group are 20.70, 22.65, and 24.52, respectively. The obtained F-ratio for 26.20 of adjusted post-test mean it is 3.23 for df 2, and 41 is more than the value of required significance at .05 level of confidence.

Scoring

The total scores were recorded as the individual scores. The Aggression Questionnaire is given in Appendix-II.

Academic Performances

The students were regular school going students, and their marks of quarterly and half-yearly examination total marks were assessed. Their regular classes, along with simplified Kundalini yoga and Pranayama, were given to the experimental groups I and II.

Aggression

The Analysis of covariance (ANCOVA) on Aggression of experimental groups and control group, have been analyzed and presented in Table.

There are significant differences among the Simplified Kundalini yoga group, Pranayama Group, and the Control Group on the development of Aggression. To determine the results of the study, Scheffe’s test was applied as a Post hoc test, and the results are presented in Table.

The Schaffer’s Test for the Differences between the Adjusted Post Test Paired Means on Aggression

Adjusted Post-test means			Mean Difference	Confidence Interval
Simplified Kundalini Yoga Group (I)	Pranayama Practices Group (II)	Control Group - (III)		
20.70	22.65		1.95*	1.32
20.70		24.52	3.82*	1.32
	22.65	24.52	1.87*	1.32

* Significant at .05 level of confidence

The table shows that the adjusted post-test mean difference on Simplified Kundalini yoga Group and Pranayama Practices Group, Simplified Kundalini yoga Group and Control Group, Pranayama Practices Group and Control Group are 1.95, 3.82

and 1.87 respectively. The value 1.32 is greater than the confidence interval, which shows significant differences at .05 level of confidence.

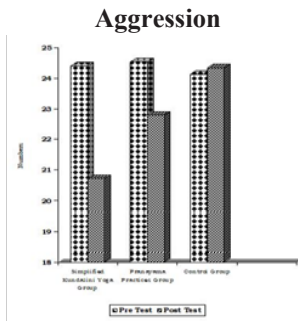
The results of the study show that there is a significant difference in Aggression between the

adjusted post-test means of three Groups. However, the improvements in the Aggression level were significantly bigger in the Simplified Kundalini yoga Group than in the Pranayama Practices Group and

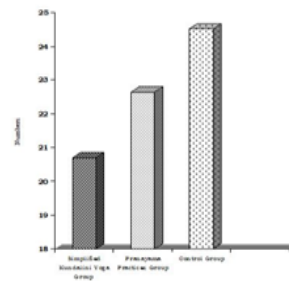
Control Group.

It has been concluded that the Simplified Kundalini yoga Group is better than the two other Groups in the Aggression level.

Bar Graph Shows the Mean Values of Simplified Kundalini Yoga Group and Pranayama Practices Group and Control Group on Aggression



Bar Graph Shows the Adjusted Post Test Mean Values of Simplified Kundalini Yoga Group and Pranayama Practices Group and Control Group on Aggression



Academic Performance

The Analysis of covariance (ANCOVA) on Academic Performance of experimental groups and

control group, have been analyzed and presented in the table.

Analysis of Covariance on Academic Performance of Simplified Kundalini Yoga Group pranayama Practices Group and Control Group

Adjusted Post-test Means			Source of Variance	Sum of Squares	df	Mean Squares	'F' Ratio
Simplified Kundalini Yoga Group (I)	Pranayama Practices Group (II)	Control Group (III)					
435.00	422.00	390.00	Between	80.79	2	40.40	32.09*
			Within	51.62	41	1.26	

* Significant at .05 level of confidence; (Academic Performance Scores in Marks)
(The table value required for Significance at .05 level with df 2 and 41 is 3.23)

The table shows that the adjusted posttest mean value of Academic Performance for Simplified Kundalini yoga group and Pranayama Practices Groups and the Control Group are 435.00, 422.00, and 390.00, respectively. The obtained F-ratio for 32.09 for adjusted posttest means it is 3.23 for df 2 and 41 more than the value of required significance at .05 level of confidence.

There are significant differences among the Simplified Kundalini yoga group and Pranayama Practices Groups and the Control Group on the development of Academic Performance. To determine the results of the study, Scheffe's test was applied as a Post hoc test, and the results are presented in Table.

The Schaffer's Test for the Differences between the Adjusted Post Test Paired Means on Academic Performance

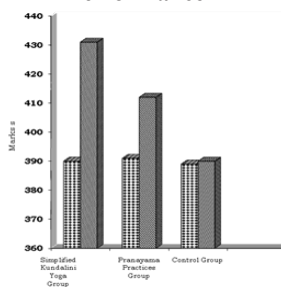
Adjusted Post-test means			Mean Difference	Confidence Interval
Simplified Kundalini Yoga Group (I)	Pranayama Practices Group (II)	Control Group - (III)		
435.00	422.00		13.00*	1.03
435.00		390.00	45.00*	1.03
	422.00	390.00	32.00*	1.03

*Significant at .05 level of confidence

The table shows that the adjusted posttest means a difference in Simplified Kundalini yoga Group and Pranayama Practices Group, Simplified Kundalini yoga Group and Control Group, Pranayama Practices Group, and Control Group are 13.00, 45.00 and 32.00 respectively. The values are higher than the confidence interval value 1.03, which shows significant differences at .05 level of confidence.

It has been concluded from the results of

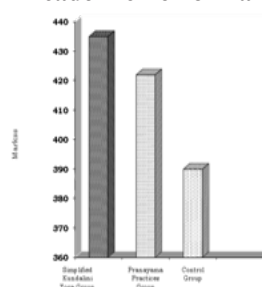
Bar Graph Shows the Mean Values of Simplified Kundalini Yoga Group, Pranayama Practices Group and Control Group on Academic Performance



the study that there is a significant difference in Academic Performance between three Groups. Were the differences in academic Performance were significantly higher for Simplified Kundalini yoga Group than the Pranayama Practices Group, and Control Group.

It is be concluded that the Simplified Kundalini Yoga Group is better than the Groups in improving Academic Performance.

Bar Graph Shows the Adjusted Post Tests Mean Values of Simplified Kundalini Yoga Group, Pranayama Practices Group And Control Group on Academic Performance



Conclusions

Based on the result of the study, the following conclusions were drawn.

1. There was a significant difference between the Simplified Kundalini Yoga group and the Pranayama group when compared to the control group on psychological variables of Aggression due to Simplified Kundalini Yoga and Pranayama Practices.
2. There was a significant improvement in academic performance due to the Simplified Kundalini Yoga group and Pranayama group when compared to the control group.
3. Simplified Kundalini Yoga group was found to be better than the Pranayama Practices group and control group in Aggression and Academic performance.

Recommendations

A similar study may be conducted by selecting other Physiological variables as criterion variables.

1. A similar study may be conducted by selecting Performance related variables as criterion variables.

2. A similar study may be attempted by selecting the state or national level athletes or players as subjects.
3. A similar study may be conducted on female subjects.
4. A similar study may be undertaken to analyze other Psychological and Hematological parameters.

From this finding of the study, it is recommended to the authorities to adopt compulsory Simplified Kundalini Yoga programs for all institutions.

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www.yogajournal.com

Author Details

M. Yuvaraj, *Manavalakkalai Yoga Teacher, Bannari Amman Vidya Niketan, Sathyamangalam, Tamil Nadu, India*