



Research article

IMPACT OF YOGIC PRACTICE ON ADJUSTMENT BEHAVIOUR AND AGGRESSION BEHAVIOUR OF TRIBAL AND NON-TRIBAL SCHOOL CHILDREN

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Abstract

The purpose of the study is to find out the impact of yogic practice on adjustment behaviour and aggression behaviour of tribal and non-tribal school children. The study was formulated as a true random group design, consisting of a pre-test, post-test. Forty tribal and forty non-tribal upper primary students from Coimbatore city; Tamil Nadu, India were selected as subjects at random and their ages ranged from 11 to 14 years. The subjects were divided into four equal groups of twenty each. Pre-test was conducted for all the subjects on adjustment behaviour and aggression behaviour. This initial test scores formed as pre-test scores of the subjects. The groups were assigned as Group I acted as Experimental Group I (Tribal yogic practice group), Group II acted as Control Group I (Tribal control group), Group III acted as Experimental Group II (Non-tribal yogic practice group) and Group IV acted as Control Group II (Non-tribal control group). Experimental Groups were exposed to yogic practice and Control Groups were not exposed to any experimental training. The duration of experimental period was 12 weeks. After the experimental treatment, experimental groups and control groups were tested on their adjustment behaviour and aggression behaviour. This test scores formed as post-test scores of the groups. Analysis of Covariance (ANCOVA) was used to find out the significant difference between tribal and non-tribal yogic practice groups, and control groups on adjustment behaviour and aggression behaviour. In all cases 0.05 level of significance was fixed to test hypotheses. It is concluded that yogic practice (tribal and non-tribal) groups had significant improvement than the control group (tribal and non-tribal) on adjustment behaviour of school children. It is concluded that there is no significant difference between yogic practice tribal group and non-tribal group on adjustment behaviour of school children. And also it is concluded that yogic practice (tribal and non-tribal) groups had

significant improvement than the control group (tribal and non-tribal) on aggression behaviour of school children. Further it is concluded that there is a significant difference between yogic practice tribal group and non-tribal group on aggression behaviour of school children.

Key words: *Adjustment behaviour, aggression behaviour, tribal, non-tribal, school children.*

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INTRODUCTION

Yoga is a science that has been practiced for thousands of years. It consists of ancient theories, observations and principles about the mind and body connection which is now being proven by modern medicine. Substantial research has been conducted to look at the Health Benefits of Yoga - from the Yoga Postures (Asanas), Yoga Breathing (Pranayama) and Meditation. Practicing yoga in a school teaches students physical awareness, mental awareness, emotional awareness, community awareness and how to use relaxation techniques to reduce stress. Yoga in the school is a convenient and practical outlet that also improves balance, strength, flexibility, kinesthetic sense, focus and attention.

Offensive behaviour or aggression among children and adolescents is a significant clinical and social problem. The significance derived from findings that antisocial behaviour (particularly aggressive acts) are relatively prevalent among community samples, serve as the basis for one-third to one-half of clinical referrals among children, are relatively stable over the course of development, often portend major dysfunction in adulthood (e.g., criminal behaviour, alcoholism, antisocial personality), and are likely to be transmitted to one's offspring's (**Kazdin, in Press; Loeber 1985; Robins, 1981; Rutter & Giller, 1983**).

METHODS AND MATERIALS

SELECTION OF SUBJECTS

The purpose of the study was to find out the influence of yogic practice on adjustment behaviour and aggression behaviour of tribal and non-tribal school children. To achieve the purpose of the present study, forty tribal and forty non-tribal upper primary students from Coimbatore city; Tamil Nadu, India were selected as subjects at random and their ages ranged from 11 to 14 years. The

subjects were divided into four equal groups of twenty each. Group I acted as Experimental Group I (Tribal yogic practice group), Group II acted as Control Group I (Tribal control group), Group III acted as Experimental Group II (Non-tribal yogic practice group) and Group IV acted as Control Group II (Non-tribal control group). The requirement of the experiment procedures, testing as well as

exercise schedule was explained to the subjects so as to get full co-operation of

the effort required on their part and prior to the administration of the study.

SELECTION OF VARIABLES

The research scholar reviewed the available scientific literature pertaining to the problem from books, journals, magazines, websites, and research papers which revealed the importance of yogic practice. Taking into consideration of feasibility, criteria and availability of the

instruments the following variables were selected for this study.

Dependent Variables

- Adjustment behaviour
- Aggression behaviour

Independent Variables

- Yogic practice

EXPERIMENTAL DESIGN

The study was formulated as a true random group design, consisting of a pre-test, post-test. Forty tribal and forty non-tribal upper primary students from Coimbatore city; Tamil Nadu, India were selected as subjects at random and their ages ranged from 11 to 14 years. The subjects were divided into four equal groups of twenty each. Pre-test was conducted for all the subjects on adjustment behaviour and aggression behaviour. This initial test scores formed as pre-test scores of the subjects. The groups were assigned as Group I acted as Experimental Group I (Tribal yogic practice group), Group II acted as Control Group I (Tribal control group), Group III acted as Experimental Group II (Non-tribal yogic practice group) and Group IV

acted as Control Group II (Non-tribal control group). Experimental Groups were exposed to yogic practice and Control Groups were not exposed to any experimental training. The duration of experimental period was 12 weeks. After the experimental treatment, experimental groups and control groups were tested on their adjustment behaviour and aggression behaviour. This test scores formed as post-test scores of the experimental groups subjects. Analysis of Covariance (ANCOVA) is used to find out the significant difference between tribal and non-tribal yogic practice groups, and control groups on adjustment behaviour and aggression behaviour. In all cases 0.05 level of significance was fixed to test hypotheses.

RESULTS AND DISCUSSION

The significant difference among the four groups on adjustment behaviour is presented in table - I.

**TABLE - I
COMPUTATION OF ANALYSIS OF COVARIANCE OF YOGIC PRACTICE
GROUP AND CONTROL GROUP OF BOTH TRIBAL AND NON-TRIBAL
CHILDREN ON ADJUSTMENT BEHAVIOUR**

	Tribal Yogic practice Group	Tribal Control Group	Non- tribal Yogic practice Group	Non- tribal Control Group	Source of Variance	Sum of Squares	df	Mean Squares	F-ratio
Pre-Test Means	33.850	34.650	36.900	37.150	BG	161.037	3	53.679	2.080
					WG	1073.450	76	14.124	
Post- Test Means	39.100	37.650	41.600	36.500	BG	290.238	3	96.746	9.724**
					WG	756.150	76	9.949	
Adjusted Post- Test Means	39.835	38.056	41.081	35.878	BG	304.411	3	101.470	13.246**
					WG	574.524	75	7.660	

**Significant at 0.01 level

An examination of table – I indicates the results of ANCOVA for pre-test scores of the yogic practice group and control group of both tribal and non-tribal children. The obtained F-ratio for the pre-test is 2.080 indicating that the random sampling is successful and the table F-ratio is 2.724. Hence the pre-test mean F-ratio is insignificant at 0.05 level of confidence for the degree of freedom 3 and 76.

The obtained F-ratio for the post-test is 9.724 and the table F-ratio is 4.05. Hence the post-test mean F-ratio is significant at 0.01 level of confidence for the degree of freedom 3 and 76.

The adjusted post-test means of yogic practice group and control group of both tribal and non-tribal children are 39.835 , 38.056, 41.081 and 35.878 respectively. The obtained F-ratio for the adjusted post-test means is 13.246 and the table F-ratio is 4.05. Hence the adjusted post-test mean on adjustment F-ratio is significant at 0.01 level of confidence for the degree of freedom 3 and 75.

The pre test, post test and adjusted post test means of the four groups on adjustment behaviour is presented in Figure - 1.

FIGURE - 1
BAR DIAGRAM SHOWING THE PRE-TEST, POST-TEST AND ADJUSTED
POST-TEST MEANS OF YOGIC PRACTICE GROUP AND CONTROL GROUP
OF BOTH TRIBAL AND NON-TRIBAL CHILDREN ON ADJUSTMENT
BEHAVIOUR

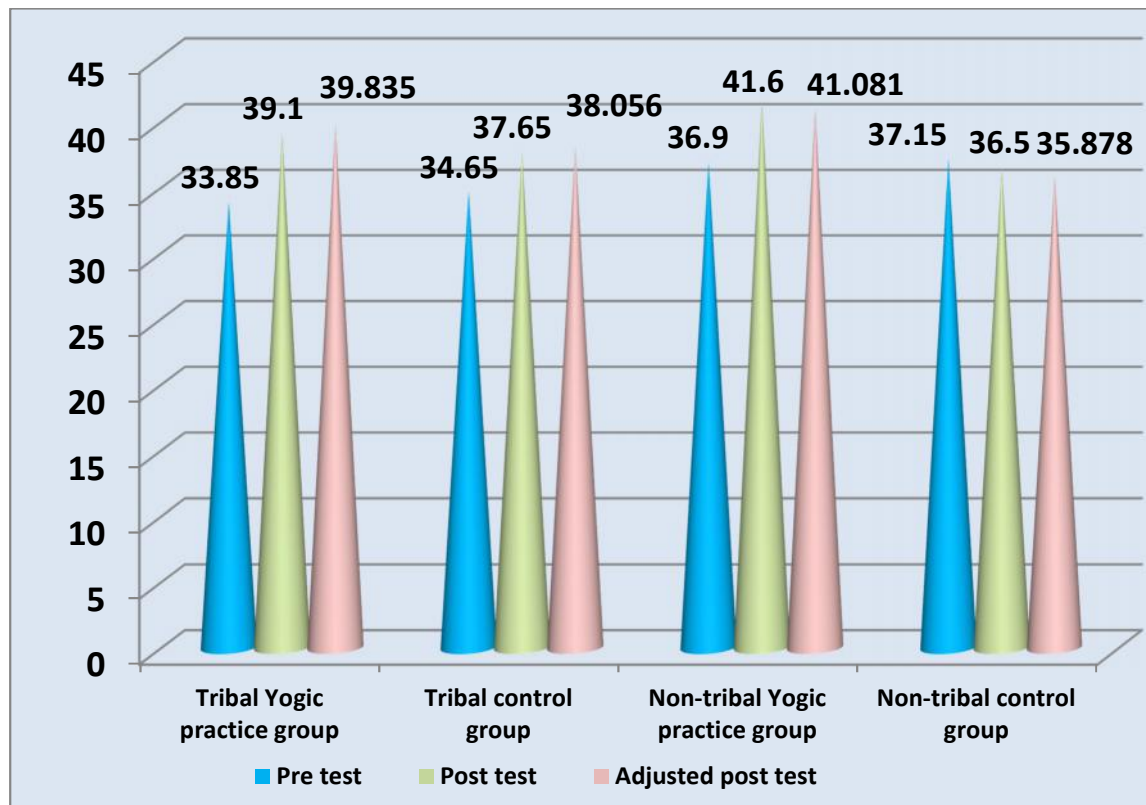


TABLE - II
THE SCHEFFE’S TEST FOR THE DIFFERENCES BETWEEN THE ADJUSTED
POST-TEST PAIRED MEANS ON ADJUSTMENT BEHAVIOUR

Tribal Yogic practice Group	Tribal Control Group	Non-tribal Yogic practice Group	Non-tribal Control Group	Mean difference	CI
39.835	38.056	-	-	1.779*	1.769
39.835	-	41.081	-	1.246	
39.835	-	-	35.878	3.957*	
-	38.056	41.081	-	3.025*	
-	38.056	-	35.878	2.178*	
-	-	41.081	35.878	5.203*	

Table – II shows the ordered adjusted means and difference between the means of the tribal yogic practice

group, tribal control group, non-tribal yogic practice group and non-tribal control group. The mean values of tribal

yogic practice group, tribal control group, non-tribal yogic practice group and non-tribal control group are 39.835, 38.056, 41.081, and 35.815 respectively. The mean differences between the paired means are 1.779, 1.246, 3.957, 3.025, 2.178 and 5.203 respectively.

The results of the study shows that there is a significant difference seen between tribal yogic practice group and

tribal control group; tribal yogic practice group and non-tribal control group; tribal control group and non-tribal yogic practice group; tribal control group and non-tribal control group; non-tribal yogic practice group and non-tribal control group.

The significant difference among the four groups on aggression behaviour is presented in table - III.

TABLE - III
COMPUTATION OF ANALYSIS OF COVARIANCE OF YOGIC PRACTICE GROUP AND CONTROL GROUP OF BOTH TRIBAL AND NON-TRIBAL CHILDREN ON AGGRESSION BEHAVIOUR

	Tribal Yogic practice Group	Tribal Control Group	Non-tribal Yogic practice Group	Non-tribal Control Group	Source of Variance	Sum of Squares	df	Mean Squares	F-ratio
Pre-Test Means	74.400	76.900	74.250	70.850	BG	370.300	3	123.433	1.297
					WG	7230.900	76	95.143	
Post-Test Means	56.600	75.550	65.650	69.650	BG	3800.637	3	1266.879	10.292**
					WG	9354.850	76	123.090	
Adjusted Post-Test Means	56.473	74.365	65.587	71.026	BG	3662.803	3	1220.934	11.362**
					WG	8059.061	75	107.454	

**Significant at 0.01 level

An examination of table – III indicates the results of ANCOVA for pre-test scores of the yogic practice group and control group of both tribal and non-tribal children. The obtained F-ratio for the pre-test is 1.297 indicating that the random sampling is successful and the table F-ratio is 2.724. Hence the pre-test mean F-ratio is insignificant at 0.05 level of

confidence for the degree of freedom 3 and 76.

The obtained F-ratio for the post-test is 9.724 and the table F-ratio is 4.05. Hence the post-test mean F-ratio is significant at 0.01 level of confidence for the degree of freedom 3 and 76.

The adjusted post-test means of yogic practice group and control group of

both tribal and non-tribal children are 56.473, 74.365, 65.587 and 71.026 respectively. The obtained F-ratio for the adjusted post-test means is 11.362 and the table F-ratio is 4.05. Hence the adjusted post-test mean on aggression F-ratio is

significant at 0.01 level of confidence for the degree of freedom 3 and 75.

The pre test, post test and adjusted post test means of the four groups on aggression behaviour is presented in Figure - 2.

FIGURE - 2
BAR DIAGRAM SHOWING THE PRE-TEST, POST-TEST AND ADJUSTED POST-TEST MEANS OF YOGIC PRACTICE GROUP AND CONTROL GROUP OF BOTH TRIBAL AND NON-TRIBAL CHILDREN ON AGGRESSION BEHAVIOUR

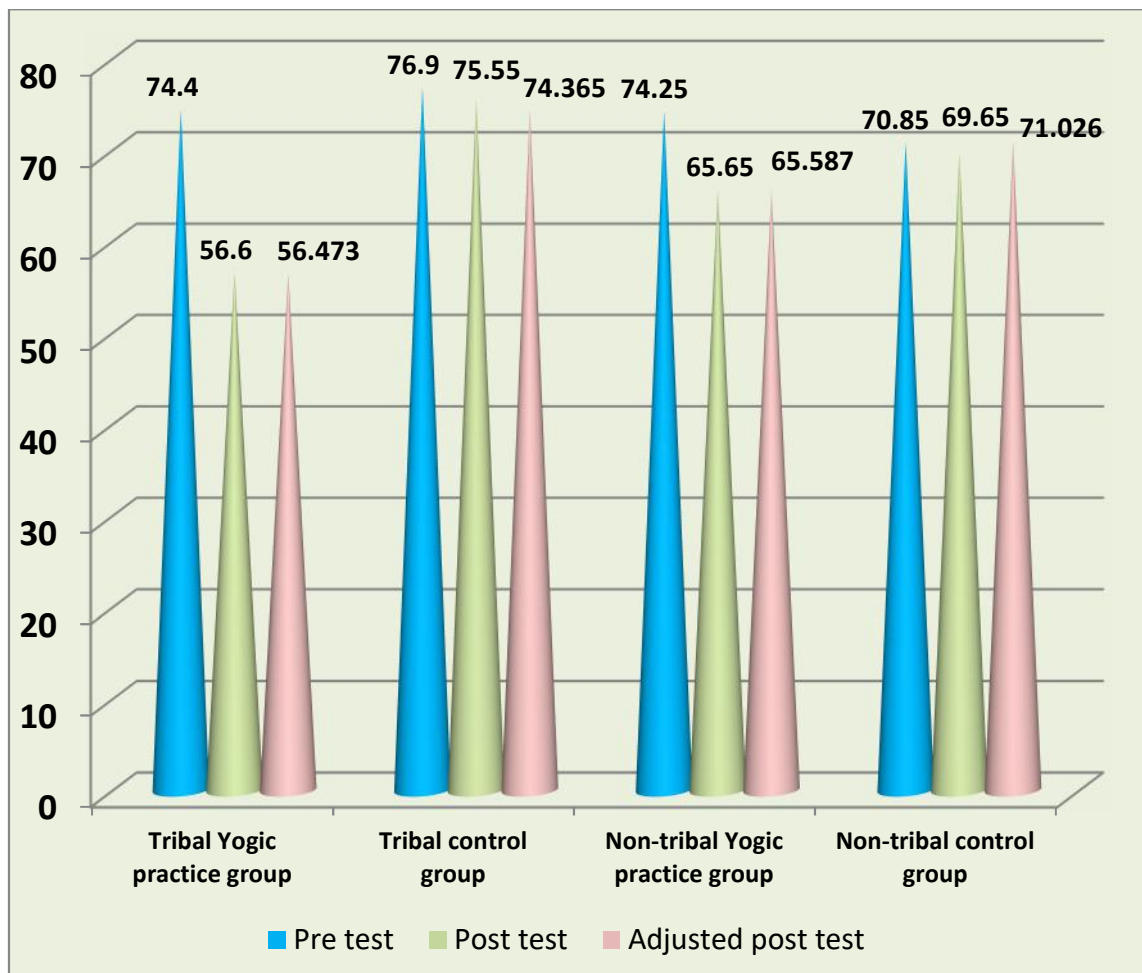


TABLE - IV**A. THE SCHEFFE'S TEST FOR THE DIFFERENCES BETWEEN THE ADJUSTED POST-TEST PAIRED MEANS ON AGGRESSION BEHAVIOUR**

Tribal Yogic practice Group	Tribal Control Group	Non-tribal Yogic practice Group	Non-tribal Control Group	Mean difference	CI
56.473	74.365	-	-	17.892*	6.628
56.473	-	65.587	-	9.114*	
56.473	-	-	71.026	14.553*	
-	74.365	65.587	-	8.778*	
-	74.365	-	71.026	3.339	
-	-	65.587	71.026	5.439	

Table – IV shows the ordered adjusted means and difference between the means of the tribal yogic practice group, tribal control group, non-tribal yogic practice group and non-tribal control group. The mean values of tribal yogic practice group, tribal control group, non-tribal yogic practice group and non-tribal control group are 56.473, 74.365 and 65.587 respectively. The mean differences between the paired means are

17.892, 9.114, 14.553, 8.778, 3.339 and 5.439 respectively.

The results of the study shows that there is a significant difference seen between tribal yogic practice group and tribal control group; tribal yogic practice group and non-tribal yogic practice group; tribal yogic practice group and non-tribal control group; tribal control group and non-tribal yogic practice group.

DISCUSSION ON FINDINGS

The results of the study shows that there is a significant difference seen between tribal yogic practice group and tribal control group; tribal yogic practice group and non-tribal control group; tribal control group and non-tribal yogic practice group; tribal control group and non-tribal control group; non-tribal yogic practice group and non-tribal control group. Further the results of the study shows that there is no significant difference between tribal yogic practice group and non-tribal yogic practice group on adjustment behavior of school children.

The results of the shows that there is a significant difference seen between tribal yogic practice group and tribal control group; tribal yogic practice group and non-tribal yogic practice group; tribal yogic practice group and non-tribal control group; tribal control group and non-tribal yogic practice group on aggression behavior of school children. The results of the study is supported by the following researchers Butzer, B. (2015), Shivasish Kothiyal., & Praveen Joshi. (2012), Anita Sharma. (2012), Pant Gaurav., Bera T. K., & Shete Sanjay Uddhav. (2013), SudheerDeshpande.,

Nagendra, HR., & NagarathnaRaghuram. (2008)

CONCLUSIONS

- ❖ It is concluded that yogic practice (tribal and non-tribal) groups had significant improvement than the control group (tribal and non-tribal) on adjustment behaviour of school children.
- ❖ It is concluded that there is no significant difference between yogic practice tribal group and yoga practice non-tribal group on adjustment behaviour of school children.
- ❖ It is concluded that yogic practice (tribal and non-tribal) groups had significant reduction than the control group (tribal and non-tribal) on aggression behaviour of school children.
- ❖ It is concluded that yogic practice tribal group had significant reduction than the yogic practice non-tribal group on aggression behaviour of school children.

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