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## Impact on Tantrum Behaviour of Autistic Children Through Yogic Activities: An Experimental Study

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### ABSTRACT

Autism is a neuro behavioral disorders, including the defining features of, impaired verbal and nonverbal communication, poor social communication and repetitive patterns of behavior. Present study was determine to examine the effect of yogic activities for improving Tantrum behaviour of autistic children. Study was further conducted on eighteen (18) autistic children of age group of 8-14 years. Childhood Autism Spectrum Test or CAST (formerly the “Childhood Asperger’s Syndrome Test”) is a 39-item, positive or negative evaluation developed by ARC (the Autism Research Centre) at the University of Cambridge, was used to ensure the subject having autism. Further, respondents were divided into three equal groups namely i.e yogic asana group, yogic pranayama group and control group. Forty two (42) weeks yogic asana and yogic pranayama training programme were given to the autistic children. Pre and post-test data were collected through standardized self made Autism Tantrum Behaviour Scale (ATBS) by instructing selected training programme to the samples. However, No experimental treatment was imparted to control group. The results of existing investigation confirm encouraging effects of yogic asana and yogic pranayama programme.

**Keywords:** Autism, Yoga, Tantrum Behaviour.

### 1. INTRODUCTION

Autism is a developmental disorder of biological origin which appears during the first three years and caused by brain dysfunction. According to Hirari (1968), term Autism is derivative of Greek words Autos meaning self. Autism, a situation in which an individual is not involved in any social activity hence, an isolated self. Autism spectrum disorder (ASD) is a developmental disability occurs due to differences in the brain “A tantrum is a technique for the child to express his/her desired towards parents and others” (Broder, 2013

and Lee, 2014). The initial stage of tantrums in children noted at 12–15 months age as a child start response about their likes and dislikes. A tantrum at this age usually involves substantial objects. The children almost take attention by loud crying and physically resistant behavior. Typically tantrums crest between 18–36 years of age. Some children keep tantrums for very less periods of time (10–15 seconds), however some of them continue with it for longer duration also. Autistic children involve more in tantrum as compare to normal children. A tantrum is uncomfortable, prolonged, exasperating, frightening, faulty, irritating and sometime dangerous for autistic children. Yoga is classified as a brain and body involvement (Koenig et. al., 2012). Yogic activities were used as an intervention approach to enhance concentration, increase social skills, reduce challenging behavior, and increase functioning in autistic children (Resenblatt et. al., 2011).

### **Objectives**

1. To scrutinize the effect of yogic asana on tantrum behavior of autistic children.
2. To analyze the effect pranayama on tantrum behavior of autistic children.

### **Hypotheses**

1. Yogic asana significantly effect on tantrum behavior of autistic children.
2. Pranayama significantly effect on tantrum behavior of autistic children.

## **2. METHODOLOGY**

### **Sample**

Parents and teachers of eighteen (18) autistic children between the age group of 8 to 14 years from Mini Bright Future Mentally Challenged School Gosianpur, Punjab, India were selected for the present study. Prior Permission was taken from school authorities to conduct the experiment. For true, honest and active participation in the study teachers and parents signed an informed consent form. The participation in this study was accomplished on a voluntary basis.

### **Selection of Variables**

Yogic asana and pranayama treatment given to the subjects so these were considered as independent variable and tantrum behaviour was considered as the dependent variable.

### **Training Design**

Yogic asana and pranayama programme were prepared on the basis of the interest of the subjects by following the expert's suggestions. Training of yogic asana, pranayama were imparted to the subjects six days in a week for forty two (42) weeks. There were two session in a day i.e morning (5:30 to 7:30 am approx) and evening (5:00 to 7:00 approx). Yogic asana programme comprises and yogic pranayama programme includes.

### **Tool for Data Collection**

The Childhood Autism Spectrum Test or CAST (formerly the “Childhood Asperger’s Syndrome Test”) is a 39-item, positive or negative evaluation aimed at parents developed by ARC (the Autism Research

Centre) at the University of Cambridge and Self-made Autism Tantrum Behaviour Scale (ATBS) scale was prepared by the investigators to find out the effect of yogic asana and yogic pranayama on tantrum behaviour of autistic children. The scale was constructed and standardized in consultation with national and international professional and psychiatrists. Apart from this, the researcher went through review of related literature, various tests and books for observation. The suggestions of 40 experts were incorporated for the better validity of the scale.

### Statistical Design

Analysis of covariance (ANCOVA) along with descriptive statistics and Post Hoc tests was used as the statistical technique on SPSS at 0.05 levels of significance.

## 3. RESULTS AND ANALYSIS

**Table 1**  
**Descriptive statistics in relation to tantrum behaviour of autistic children**

<i>Autistic Children</i>	<i>Control</i>	<i>Asana</i>	<i>Pranayama</i>	<i>Total</i>
N	6	6	6	18
Mean	36.67	24.17	21.83	27.55
Std. Deviation	0.82	1.47	1.94	6.85

Table 1 shows the mean and standard deviation of Control group, Asana group, Pranayama group and Total in relation to Tantrum behaviour of Autistic children.

Mean and standard deviation of Control group is 36.67 and 0.82, Asana group is 24.17 and 1.47, Pranayama group is 21.83 and 1.94 and Total of group is 27.55 and 6.85 respectively in relation to Tantrum behaviour of Autistic children.

**Table 2**  
**Analysis of covariance of comparison of post test means of Experimental groups and Control group in relation to Tantrum Behaviour of autistic children**

<i>Autistic Children</i>	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Contrast	694.41	2	347.2	163.225	0.00
Error	29.78	14	2.127		

\*Significant at 0.05 level (2, 14)  $df = 3.74$

**Table 2** shows the  $f$ -ratio of Control group, Asana group, Pranayama group in relation to Tantrum behaviour of Autistic children.

The Sig value is 0.00 less than 0.05 and the calculated  $f$ -value is 163.225 greater than tabulated value = 3.74 at 2, 14 df, therefore it shows significance difference between the groups.

## 4. DISCUSSION

In the present study the investigators examined the effect of yogic asana and pranayama training programme on tantrum behaviour of autistic children. The result of the present study shows significant difference

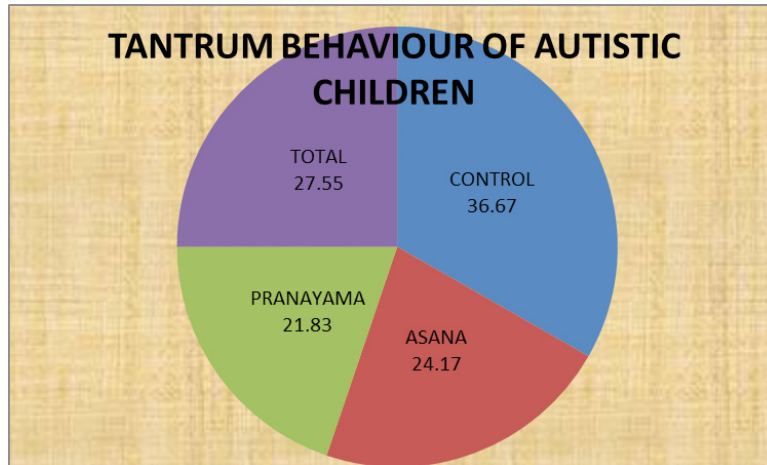


Figure 1

in both experimental and control group on the variable tantrum behavior of autistic children. Tantrum behaviour occupies a large proportion of the behavioral repertoires of children with autism. These types of behavior act as obstacle for the future and the development of the children. Yogic asana and pranayama training are associated with positive reinforcement in general. Role of yogic asana and pranayama training has been negligently examined with regards to autistic children treatment. Yogic asana and pranayama training programme provide an opportunity to become physically active and provide some therapeutic benefit also. Result of the present study is also in line with Koenig et.al (2012) who suggests that yogic activities program reduce autistic behaviour in children. Upcoming research with stronger substantiation planes, superior rigor, and longer-term result consideration is mandatory to determine precise exercise parameters. Despite limitations of systematic experiment the study suggests that yogic asana and pranayama are beneficial, in reducing tantrum behaviours in children with autism.

## 5. CONCLUSIONS

The results of the study confirmed that yogic asana have a significant effect on tantrum behavior of autistic children. Similarly pranayama also confirm the significant effect on tantrum behavior of autistic children. Therefore it is concluded that yogic asana and pranayama activities should be the part of adjective therapy to the autistic children.

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