



## Effect of Psycho-Yogic Intervention on Attention Deficit/Hyperactivity Disorder Among Adolescents

### KEYWORDS

Adolescents, Attention Deficit/ Hyperactivity Disorder, Psycho-Yogic intervention.

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**ABSTRACT** Attention-Deficit/ Hyperactivity Disorder (ADHD) is a common childhood disorder that can continue through adolescence and adulthood. It completely disrupts the development of a child's personality, education, career as well as social and personal life. The behavioural disturbances distress the children and threaten to increase healthcare costs for their families. This research explores the effectiveness of Psycho-Yogic intervention in reducing the symptoms of Attention-Deficit/ Hyperactivity Disorder. A Control group study was conducted on a sample of 80 adolescents, taken through quota sampling, with 50 in Experimental and 30 in Control group. Conner's Parent and Teacher Rating Scales (1997) for used for pre and post readings. After 8 weeks of intervention, significant improvement was noticed in Experimental group at 0.01 level of confidence thus indicating that Psycho-Yogic Intervention can be applied to reduce the symptoms of ADHD among adolescents.

### INTRODUCTION

Adolescence is a stage between 10 and 19 years wherein the transition from childhood to adulthood occurs. It is the period of human development during which a young person moves from dependency to independence, autonomy and maturity; from being part of a family group to being part of a peer group and to be independent as an adult. According to Cullen (2011), young people of this age want to discover their roles, what they want to do and where they fit in the world. There is an increased influence of peer group and greater interest in privacy. In India, the total population of young people is approximately 327 million, 21% of which falls in the age bracket of 10-19, which is classified as adolescents (WHO, 2007).

Adolescence can be a time for both socially disturbing behaviour patterns entering the psychological realm or it can be a period of self-discovery, wherein many aspects of one's personality may surface and many hidden talents might be discovered. As a result of this drastic change, many of the behaviours of adolescents appear unsocial and unsympathetic (Kumar, 2009). They can have mental health disorders that interfere with the way they think, feel, and act, which when untreated, can lead to school failure, family conflicts, drug abuse, violence, and even suicide. It is estimated that as many as one, in five children and adolescents, may have a mental health disorder that can be identified and require treatment.

Srinath et al., (2005) indicated a prevalence rate, for child & adolescent psychiatric disorders, to be 12.5 per cent among children aged 0-16 years. Around 90% children with a mental health disorder are not currently receiving any specialist service for treatment of such disorders (Shastri, 2009). For children who struggle with Attention Deficit/ Hyperactivity Disorder (ADHD), going to school, building social relationships and developing study skills can be challenging. Attention deficit/ hyperactivity disorder (ADHD) is a behavioural condition that is characterized by lack of attention, problems with impulse control, and difficulty in adherence to rules. Although children with ADHD have normal intelligence, school performance is often poor. A review by Karande (2005) emphasized that ADHD is one of the most prevalent and chronic behavioural disorders amongst the adolescents and is characterized by ongoing hyperactivity, impulsiveness and a chronic need for attention that impairs achievement in the

field of education and/or social functioning.

It is also notable that severe attention problems in adolescence can lead to various other disorders in adulthood. ADHD is prevalent in India and the bunch of these children are mostly presenting to the pediatrician. They need to be aware of the profile of this disorder for early detection and intervention (Mukhopadhyay, Misra, Mitra & Niyogi, 2003).

Amphetamines are being used to treat hyperactive children. These drugs have effect on the reticular formation which is a key area at the top of the spinal cord in the brain. This important area is responsible for controlling the function of consciousness and attention. When the amphetamines act on the reticular formation, the hyperactive child becomes quieter and exhibits a longer attention span but along with results there comes a series of side-effects too.

As per a recent case study, two children prescribed with methylphenidate for ADHD developed suicidal ideation that subsided after discontinuing the drug.

There were no depressive symptoms reported along with it, and the ideation could not be explained on the basis of impulsivity either. Various other psychiatric symptoms that have occurred in children being treated with amphetamines include euphoria, delirium, confusion, toxic psychosis, and hallucinations (Arun & Sahni, 2014). Thus, it is clear that the effect of drug treatment for ADHD is only temporary. When the effects wear off, the child again reverts to his usual maladaptive behaviour.

Adolescents are the generation which will inherit our country. They are hoped to be useful individuals capable of contributing towards our country's well-being in general. The behaviours associated with ADHD can be frustrating, and navigating treatment options can be even more so. But as holistic investigation continues, it is emerging that treatment plans including numerous approaches and modalities to improve all aspects of a person's life, such as yoga, meditation, diet and behavioural therapies, may be the most effective.

The present research analyses a Psycho-Yogic intervention program for resolving the symptoms of ADHD among adolescents. The practices of yoga not only help to keep the young body strong and supple but also incorporate mental

activities, disciplines that help to develop attention and concentration, and stimulate the creative abilities that are latent within the child. Yoga may be considered a form of therapy intended to modify behaviour (Telles, 2012). The practice of Surya Namaskara stimulates and balances all the systems of the body, including the endocrine, circulatory, respiratory and digestive systems. Its influence on the pineal gland and the hypothalamus helps to prevent pineal degeneration and calcification. This balances the transition period between childhood and adolescence in growing children (Satyananda, S., 2008).

According to King (2008), Pranayama together with asanas works directly on nervous and endocrine system- therefore on mind and emotional levels of the child, helping to re-establish harmony. By practicing pranayama on a regular basis, children with ADHD can learn to regulate their reactions within themselves as well in social settings.

Yoga nidra releases the repressed feelings from the unconscious levels of the mind. Yoga nidra also helps in bringing normally unconscious functions under control (Muktananda, S., 1979).

Similarly behaviour therapy helps the child to adapt desired behaviour through reinforcement and substitute it for his maladaptive behaviour.

Büssing, Michalsen, Khalsa, Telles and Sherman (2012) reviewed the current evidence on the effects of yoga interventions on various components of mental and physical health. They also concluded that yoga intervention programs require an active participation of the individuals as do all behavioural interventions and that they may, in fact, be very supportive for carrying out and maintaining such lifestyle changes which can, in turn, support a desire to adopt and maintain healthy behaviours.

Thus, this Psycho-Yogic Intervention program is hopeful to be beneficial for adolescents with Attention Deficit/ Hyperactivity Disorder so that they can be steered in the right direction.

## METHODOLOGY

### Sample and Sampling:

A sample of 80 male adolescents (11.5-15.11 years) with 50 in experimental and 30 in control group, selected from various clinics and hospitals in New Delhi, was taken through quota sampling and was administered Psycho-Yogic Intervention for 8 weeks.

### Research Design:

The design used is 'Control Group Design'.

### Tools Used:

- Conners' Parent and Teacher Rating Scales-Revised by C.K. Conners (1997).

### Procedure:

- Preparation
- Surya Namaskara asanas:
  - Pranamasana
  - Hasta utthanasana
  - Padahasthasana
  - Ashwa sanchalanasana
  - Parvatasana
  - Ashtanga namaskara
  - Bhujangasana
  - Parvatasana
  - Ashwa sanchalanasana
  - Padahasthasana
  - Hasta utthanasana
  - Pranamasana
- Ujjayi Pranayama
- Yoga Nidra:
  - Preparation

- Resolution
- Rotation of Consciousness
- Breath Awareness
- Opposite feelings and sensations
- Visualization
- Resolution
- Ending the practice
  - Behaviour Therapy
  - End Process

Total time: 1 hour

Total Intervention Time: 8 weeks

## RESULT

### Alternate Hypothesis:

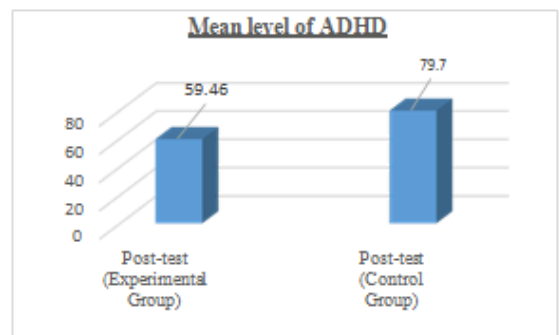
1. There is significant effect of Psycho- Yogic Intervention in reducing the symptoms of Attention Deficit/ Hyperactivity Disorder among Adolescents.

Result Table 1

Group		N	M	SD	t
Experimental	Post	50	59.46	7.126	13.06
Control	Post	30	79.70	6.412	

P<.01

### Graphical Representation of Table 1



## DISCUSSION

The present research explored the effect of Psycho-Yogic Intervention on symptoms of Attention Deficit/ Hyperactivity Disorder among adolescents. The result indicates that Psycho-Yogic Intervention is effective in reducing the symptoms associated with ADHD. The value of t, which is 13.06, is significant for the post data of control and experimental groups at 0.01 level, thus, verifying that the combination of behaviour therapy along with yogic postures, breathing and relaxation is operative in keeping behavioural problems under control.

Psycho-Yogic Intervention provides a way to handle and gradually reduce the symptoms associated with ADHD. Yoga is a science of consciousness. People who practice yoga remain healthy and energetic, tranquil and balanced (Suman & Ahluwalia, 2010). When we practice yogic techniques in a consistent and organized way, it helps in removing physical and mental restlessness and bring about a sense of mental clarity and affirmative assertiveness towards life in general. Suryanamaskara enhances concentration of the mind and also helps in self-control (Yoga Quest, 2014). Hariprasad, Arasappa, Varambally, Srinath and Gangadhar (2013) studied the effects of yoga as a complementary therapy in children with moderate to severe ADHD and concluded that there was a significant improvement in the ADHD symptoms at the time of discharge. Javadekar and Manjunath (2012) studied the effect of Surya Namaskara compared to Physical Exercise on the level of attention in students and concluded that Physical activity given regularly in a structured manner followed by supine rest improves the process of attention.

Pranayama consists of modifications of the breathing process which we bring about deliberately and consciously (Joshi, 2001). Udupa, Madanmohan, Bhavanani, Vijayalakshmi and Krishnamurthy (2003) asserted that three months of pranayama training modulates ventricular performance by increasing parasympathetic activity and decreasing sympathetic activity. Ujjayi pranayama is used in Yoga therapy to soothe the nervous system and calm the mind (Vivekananda, 2008).

Trying to focus a tense mind is like tightening a string which is already too tight. Instead of concentration, fragmentation or mental breakdown may be the result. Therefore, concentration must be developed gradually through a systematic meditative process (Niranjanananda, S., (1999). For children, who find inactivity almost unbearable, combination of physical movement and progressive relaxation is most appropriate. The practice of Yoga Nidra provides much needed relaxation and restores the balance of mental and pranic energy and also helps in releasing and rechanneling their energies in a more constructive way (Satyananda, S., 2006).

Behavior therapies are aimed at changing behaviour through the use of the same kinds of learning techniques that people use to learn any new responses. Learning created the problem and new learning can correct it. Children earn tokens for behaving correctly or accomplishing behavioural goals and can later exchange those tokens for things that they want. They may also lose tokens for inappropriate behaviour (Ciccarelli & Meyer, 2013) thus bringing about a balance and gradual development of rational behaviour.

Mehta et al., (2012) studied the efficacy of a one-year, peer-mediated interventional program consisting of yoga, meditation and play therapy maintained by student volunteers in a school in India. It was concluded from the results that students having ADHD had remarkable improvements in the students' school performances that sustained throughout the year. These results also showed promise for a cost- effective program that could easily be implemented in any school.

## CONCLUSION

Thus, it can be concluded that Psycho- Yogic Intervention is a form of complete therapy that can be used with all children because it is a technique of definitely developing physical endurance, responsiveness, emotional stability, and intellectual and inventive capacities. It is, therefore, a means of providing a balance in the overall personality of children suffering from ADHD so that they can use their potential to the fullest and be successful in their life.

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