

## **Round & Round...**

# **A Peak into the World of a Restless Child Demystifying ADHD**

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### **Abstract**

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This paper attempts to understand the probable reasons for these conditions and how as the adult community of teachers, parents, counsellors and doctors can support the health of such children. One thing is clear - children are not the cause of their health deficits. The community needs to take the onus for this and look at the modifications needed to the child's environment, in his education, diet, exposure and most importantly in his interactions. A focus on these parameters will have a defining impact on the incidence of 'ADHD- Attention Deficit Hyperactivity Disorder'.

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### **Introduction**

This is not a research paper. The narrative is based on observations from psychologists, school counsellors, doctors, teachers and special educators on how they understand and address the restlessness that is perceived in children in classrooms. The issues extend to the lack of attention or the inability to sustain attention whether at school or at home.

### **Background**

The following is a typical case encountered in consulting rooms:

Akash is often seen standing outside the classroom sometimes because he hasn't finished his homework or has been disturbing other children. His teachers are exasperated. They all say, "Akash is such a bright child, but only if could sit in one place and focus". When one looks at Akash, one sees vulnerability and helplessness as if his arms and legs had a mind of their own and he is simply powerless to control them. This is the story of many children in primary schools all over India.

Over the past decades, this phenomenon was given a name and that name has

evolved to now be known as Attention Deficit Hyperactivity Disorder or ADHD in common parlance. People diagnosed with ADHD have difficulty in paying attention and controlling impulsive behaviors. The symptoms include restlessness, inability to listen when spoken to directly, forgetfulness, being easily distracted or hyperactive.

ADHD is not just a childhood disorder. Although the symptoms begin to show in childhood, ADHD can continue through adolescence and adulthood. The diagnosis is one aspect of the issue, the other bigger aspect is the inquiry into extraneous factors such as the child's environment, his upbringing, or schooling that contributes to the increase in such restlessness.

Research on ADHD in India indicates a marked prevalence in its occurrences since 2005. The common behavioral problems noted in boys are lack of remorse, argumentativeness, and restlessness, compared to preoccupation with cleanliness and neatness, perfectionistic ideas, and argumentativeness among girls, though the difference was not statistically significant either (Gupta, Mongia and Garg, 2017).

A study by Venkata and Panicker (2013) found that the prevalence of ADHD among

primary school children was 11.32%. Prevalence was found to be higher among the males as compared to that of females. The prevalence among lower socio-economic group was found to be higher than that of among middle socio-economic group or higher income group. It was found to be highest between the age group of 9 and 10 years.

### Nature of the Problem

ADHD, as a disorder, started gaining attention from the medical fraternity in the 90s. Many models of the etiology were formed, the role of bio-chemicals, parenting, the environment, toxic substances like lead, exposure to electronic media, food additives and genetics were studied. One of the first medications that was introduced to treat ADHD was Ritalin, which was first introduced in 1956, and continues to be favored by several parents worldwide. In addition, psychologists and counsellors developed behavioral modification methods to restrain the dragon of hyperactivity along with parent training as a main focus.

Demographic studies of the incidence of ADHD in school children have continuously pointed out that the percentage of such incidence is higher in lower income groups which suggests that nutritional, environmental and psychosocial factors may be adding to the prevailing difficulties.

Life today demands multitasking and for most individuals to be available at ten different places mentally. Deadlines and tasks lists make one feel that the daily 24 hours are insufficient. This has highlighted the compelling need to look at what sensitivities a child is carrying in his physical body, his emotional body and in the environment.

In an attempt to understand ADHD, an interview was conducted with Dr. Lakshmi Prasanna a Neonatologist, who also serves as the school doctor and mentor for the teachers in the special school of V-Excel Educational Trust, Chennai. Dr. Lakshmi is also the Dean of the IRA Institute of Waldorf Teacher

Training and an expert in Developmental Disabilities.

Dr. Lakshmi opines that there are two components to this phenomenon – a) the motor component of constant limb activity contributing to restlessness and b) the inability to focus. According to her, motor restlessness comes from overstimulation while the lack of focus results from the child's inability to withdraw from the sensory world outside. There is no pause in them where nothing happens.

So much of this is evident in a child's environment, routine, school timetable and leisure time activities today. The urban schooling systems and the physical environment where children are, lend very little breathing space. This is further exacerbated by a lack of structure, of good teachers, curricula and expert guidance.

Dr. Lakshmi, who is also an Anthroposophic doctor, explained, "We take in the world just like we take food, through our senses (sight, sound, smell, thought and emotions), digest it and assimilate it into our body and soul. We can digest food or sensory impressions only if there is a reflective pause. We cannot keep eating; we need intervals where the food is digested and broken down. For the reflective pause, we need to withdraw from the world and see what we received from it. If in a child's day there are these pauses in the form of rhythmic movement, music and art woven through the learning, then that child has an easier time taking in the sensory world and digesting it. Otherwise, the passivity of simply breathing in causes ADHD."

Dr. Rudolf Steiner, an Austrian educationist, spiritual scientist and founder of Waldorf Education wrote, "Whatever in our childhood acts upon us from *outside* will, in adulthood, be transformed into forces that work from *within*". So, if children experience rhythm, quietness and good activities involving their limbs, they grow up to be calm, organized, reflective, creative and joyful adults.

In a similar vein, Eugene Schwartz wrote about ADHD in his book "Millennial Child",

“A child who lacks the living example of a self-assured guiding adult will have to struggle, in later life, to attain inner assurance and inner guidance. If we cannot steel ourselves so that we meet children with certainty in our will and clarity in our intentions, we are depriving them of one of the childhood’s most valuable experiences.” Today’s children are characterized by fragmentation, inattentiveness, boredom created out of over- and premature exposure of experiences and over-activity in thinking and feeling.

### **Contributors to the Phenomenon called ‘ADHD’**

Eugene Schwartz in the same book called today’s child as an ‘endangered species’. What has caused the child who can play, who can experience joy, who can be creative and supple in terms of movement both in soul and body, actually listen with interest and be in charge of his own hands and legs to become endangered?

#### **Lack of Age-appropriate Movements:**

Movement of all kinds is a big part of development and movement needs to be age-appropriate. The older grandmother will always calm an anxious parent who wants her child to speak by 8 months. There is no need to hurry development along and certainly this the right approach in child development. It is often observed that when children are exposed to situations or activities which are not in tune with their cognitive, emotional or physiological development, they face difficulties. E.g., introducing writing when a child’s fingers are not yet developed to form a tripod grip, results in writing difficulties later.

As an educational principle, the transition must be from gross to fine skills and from whole to part body movements. What we observe today? Do children move as much as they needed to move in their infancy, toddlerhood or preschool and early school years? Are they given enough play activities at home

or in preschools where they are using their hands, legs and bodies? In today’s world electronic media has become a playmate across all age groups. Children now listen to electronic nursery rhymes or cine music, are ferried in cars and two-wheelers everywhere, cooped up in homes as streets have become too risky to play in or because there aren’t enough parks in the neighborhoods. In the lower socio-economic stratum, there is a different kind of premature exposure, too much physical activity, and lack of nutritious food, urban dangers and violence in the residential areas and so on. These overused or underused impulses breed hyperactivity or attention deficit.

When a child moves well, or speaks well, or breathes well, almost always he is able to digest well. The basic rhythm in the human body is that of breathing. The ratio of inhalation and exhalation needs to be 1:2 for the body to feel rested. When such a rhythm is unavailable in a child, he seeks it out constantly and that manifests itself in restlessness, or he becomes bored and loses focus. Researchers have found children with ADHD are often less involved in coordinated or structured physical activities. In many schools, learning mainly involves sitting at a desk and ‘paying attention’ (reading or writing). Such learning totally ignores senses that are naturally utilized like movement, kinesthetic, and spatial dynamics.

One of the most remarkable findings to come out of the ADHD field in recent years has been the discovery that nature has a remarkably calming effect on kids diagnosed with attention deficit hyperactivity disorder (Armstrong, 2017). Time in nature is needed to support physical activity and is also said to improve academic performance, concentration, balance, coordination, and self-esteem, and even reduces the severity of symptoms of ADHD according to researchers.

#### **Exposure to Electronic Media**

In the past two decades there has been an exponential increase in the development of smart devices, from smart TVs to smart



phones to smart homes which influence every aspect of lives. This change in culture is having a marked impact on the development and daily activities of children. From a cognitive point of view, these devices have increased the use of visual senses and auditory communication and placed a premium on verbal communication using sentences and paragraphs. Where previously childhood consisted of free play in large group games, many children now live in a world of web-based media (Weiss, et al., 2011).

The exposure to TV, computers, electronic media and smart phones hinders brain development. This also leads to restricted, two-dimensional sensory impressions which don't allow the whole body to experience movement as needed in younger ages. Also lost in the process is direct human contact and contact with the earth and the natural experiences of the world around. Watching a beautiful butterfly on a screen and chasing it in the garden definitely have vastly different sensory impressions.

Studies evaluated the association between television and video game exposure and ADHD symptomatology. Cheng et al. (2010), in a data analysis study in Japan, found that children with high levels of television viewing at 18 months of age had greater hyperactive and inattention symptoms at 30 months of age compared with those with low exposure. In a cross-sectional study, Swing et al. (2010) evaluated the association between hours of television and video game use and attention problems in both school-aged children and young adults and found an association between higher total screen time (television plus video games) and increased attention problems. The findings of these studies are consistent with earlier ones that found an association between increased television viewing at ages 1 and 3 years and attention problems at age of 7 years.

In young adults, counselors often notice the severe lack of leisure activities not involving screens of any kind. Complaints in such individuals range from extreme restlessness and the lack of interest to do anything. This pattern is not limited to

children alone, but is now increasingly becoming common in all generations.

The disruption of the sensory motor integration due to excessive use of electronic media, tabs, and smart phones leads to many children seeking these sensations in other forms and the result is often the hyperactive restless movement or flitting from one thing to other without being able to engage oneself. ADHD symptoms and Internet or gaming addiction may share a bidirectional relationship where the symptoms of ADHD make gaming attractive, while gaming itself exacerbates ADHD symptoms by providing an activity that continuously reinforces the exact disinhibition, quick responsiveness, need for immediate reward, and inattention that are areas of concern. In this sense, the prolonged hours of Internet and gaming use may further reinforce and consolidate the child's proclivity to impulsive, rapid, hyper-focused reactivity. This is also in contrast to the types of activity that might have otherwise filled the same leisure hours such as complex play, sports, music and arts, or organized youth clubs, which would help to develop attention, self-control, behavioral inhibition, self-discipline, team skills, and socialization. Even if Internet addiction is not responsible for worsening ADHD symptoms, lack of exposure to these activities might be associated with a decrease in practice opportunities for working memory, patience, attention, and executive functioning (Diamond *et. al.* 2007). There are then several pathways that might explain the bidirectional association between Internet addiction and ADHD (Weiss, et al. 2011).

This also affects social communication and relationship building. Engaging in a conversation entails the need to hold a space, focus on what the other person says, wait and relate, all of which are difficult for the child who needs to just move. Video games or TV or phones add to this existing difficulty, where it's not required for the child or adult to be present to the surroundings at all. A child who is involved in a play or game with others, follows and adheres to certain rules, and becomes a part of the whole. A

child who sits in front of TV or internet has no such compulsion. The social sense does not develop. ADHD is precisely that where the child is not able to integrate the sensory impressions, lacks control over motor activity and hence lack of social skills, all of this is produced because of the TV or sitting in front of the screen instead of being with others.

### **Lack of Rhythm and Nurture in the Day and Curriculum**

“Breathing in” is an activity of taking in thoughts, eating, and learning the sensory environment and “breathing out” is movement, producing or making things, playing and engaging in creative activity. The balance of both helps the child to hold himself or digest whatever is breathed in. In most schools, this rhythm of breathing in and out is not maintained. Many children right from kindergarten seemed to have learning periods from morning till the end of the school day without any window of time to play outside or have free play, music, art or craft, drama. At home this is followed by homework time (breathing in), tuition, or TV and computer time. All such activities do not allow for the ‘pause’ that is so essential for reflection or digestion.

Lack of rhythm can come from the home environment or from a lack of consistent care or response from the adults around the children. Research suggests that children who grow up in institutions from a very young age tend to be more restless and have shorter attention span. The reasons apart from lack of rhythm can also be poor nurture, lack of nutritious food and poor living conditions.

### **Premature Exposure to Choices**

The lives of millennial parents are dictated by the ‘Freedom of Choice’ be it in breakfast, careers, activities, brands, channels or people. When a child is asked to make a choice, he has to exercise a capacity of making judgement which is innate in a fundamental sense. This capacity should be activated only around adolescence where

the part of the brain responsible for it is developing. When this capacity is exhausted in the early years, it affects the holding of interest and that is the main difficulty for children with attention deficit. Nothing holds their attention or interest long enough.

In family therapy, the index patient is considered a representation of the family’s dysfunction. In that regard, what is seen as problematic behaviour in children today, is a reflection of what is problematic in the environment.

### **Food and Other Dietary Contributors**

Psychiatrists and other mental health professionals are often asked about the role that diet and nutrition play in ADHD etiology and symptom management. A study on Australian adolescents by Howard, *et al.* (2010) studied the relationship between “Western” dietary patterns and ADHD. They found an increased likelihood of an ADHD diagnosis in children who consumed more fat, refined sugars, and sodium and less fiber, folate, and omega-3 fatty acids. A growing body of research suggests that diet, both the elimination of certain additives and/or allergens, and the consumption of nutrient-rich foods, play a role in ADHD (Rucklidge, *et al.* 2018).

Food additive allergies and intolerance to certain ingredients like sugar, casein and gluten is actually the inability to digest the environment which, in turn, comes from a lack of rhythms according to Dr. Lakshmi. That is why the removal of the allergens alone may not help if it’s not paired with good rhythms at home and school. However, it must be remembered that when it comes to ADHD or any childhood behavioural or developmental issue, there can never be a singular cause or a single one-stop solution.

### **Psychosocial Factors and Environmental Factors**

Maternal stress, early institutional care, early trauma, adverse conditions like wars, an abusive and violent family environment,

addictions in parents, discords amongst parent, all of these can directly or indirectly lead to restlessness or even ADHD. Genetic factors combined with an adverse social environment are known to create vulnerabilities in children that lead to the development of ADHD. Often though, such genetic effects are offset by a loving family, good rhythms and nutrition, and good balance in outdoor and learning activities.

### **Saving the Restless Child**

Mrs. Gita Bhalla, Associate Director, of V-Excel Educational Trust, offers the following practical tips for teachers dealing with children with ADHD in a classroom:

- a) Change from rows to circle seating this can be done to bring all children to restfulness. This helps foster activities like circle time, singing, and story time. In such an arrangement, the teacher now could be seen and heard and, in turn, the teacher could also see and connect with all the children. She could keep the children who require a little special attention to her right or left, hold their hands so they could focus and follow, and provided the opportunity for young children to imitate the teacher's gestures.
- b) Singing and movement – In the early grades, including singing can be used to bring to attention, to settle children or to start an activity along with rhythmical movement. E.g., after a break if the children are still scattered around the classroom, the teacher's clapping and singing have been shown to rouse interest. Starting a class with movement for children, almost always results in better focus for the lessons which follow the movement.
- c) Decluttering the classroom - The most distracting factor for all youngsters is the chaos in the environment. The classroom which has many charts, clashing bold colors, noises coming from outside and disorganized shelves, definitely create more restlessness. Instead, a classroom with curtains, neatly arranged shelves, walls of harmonious watercolors and charts made by teachers and neatly pasted on the walls, is bound to foster harmony. Otherwise, it becomes a sensory overload for children.
- d) Artistic activities - Wet on wet painting, where wet paint is applied to wet paper, or added to a wash of fresh wet paint, has been shown to have an extremely settling effect. Teachers who painted with children found that it reduced the noise in the classroom and the children were able to process classroom teaching better after such painting sessions.
- e) The teacher as a role model – It has been observed that when teachers worked on their own selves in the way that they spoke, carried themselves and met the children in the morning contributed to settling the children and reducing chaos. Restlessness in a child was also considerably reduced when teachers spoke softly, corrected the behavior rather than the child, approached the child and spoke to him, or simply held the restless child's hand. Having firm boundaries, with consequences, helped teachers provide the hyperactive child a sense of containment.
- f) Rhythm and structure to the day - Having a proper rhythm where there is a balance between sitting, learning, taking in and movement, and breathing out helps children who find it difficult to focus or stay still. It helps when young children are greeted by the teacher individually in the mornings. The circle in the morning helps to bring them to calm centering. Such rhythm involving movement followed by learning, an art activity, a movement activity spaced well between teaching and learning time lends structure.
- g) Connecting with home - It is useful for teachers to understand the home backgrounds and routines of the "difficult" children. With the help of the counsellors, these home routines could be modified or altered. A child who eats



his dinner at 9.30 p.m. or spends hours in front of the TV or hops from one tuition class to other, will definitely be restless and will take time to settle in class. Knowing and understanding this will give teachers indications on how to help the child in the classroom.

- h) Special schools - In V-Excel's special school, Kaleidoscope Learning Center, Neha Bhardwaj, Curative Educator, and Montessori-trained teacher observed, what helped the ADHD children settle. A casein-gluten-sugar free diet, organized environment, a teacher more centered within herself and movement helped children to be more physically present, come to activity, sustain in an activity. An organized environment in terms of cleanspace, calm rooms, swings, and sound proofing helped in sensory integration.

Play material made of wood or metal (like brass, bronze, copper or steel) or cloth aided sensory integration and reduced toxic intake in any form. Heavy metals like lead, mercury, and the use of pesticides have been proved to be responsible for ADHD.

Food rhythms are as important as activity rhythms. Having a good breakfast before eight with high carbs and protein is recommended. The liver enzymes are at their peak in the morning and can break carbohydrates much better in the morning. Breakfast should be the heaviest meal, followed by a midday break at 10 a.m. of snacks like nuts, fruits, or rice-based traditional snacks; lunch between 12 - 12.30 p.m. which can contain again carbs and protein. Meat, if consumed, should be done during lunch rather than at dinner. Dinner should ideally be before 7 p.m. and should be the lightest meal. Intake at all other times must be avoided to aid digestion. This was suggested by Dr. Lakshmi Prasanna. If such food rhythms are followed, it is half the battle won for the child with ADHD. Avoid refined and processed food with additives and replace them with complex carbs and proteins like the grains.

The gut needs to work hard to break down the food which is then converted to useful energy as opposed to, say, sugar which acts as stimulant for the children with ADHD.

Teachers must work on and educate the parents and grandparents of children with ADHD. Counselors must augment this by working with parents, their biographies, empowering them to set boundaries and creating rhythm and modifications at home to help the child with ADHD. As the child steps into adolescence, what helps is more dialogue, information sharing, allowing a non-judgmental space to discuss and share, and patience.

## Conclusion

Every health condition which is seen as an 'outbreak' can be looked at as a community awakening. For irradiating plague and cholera whole communities came together and worked hard to maintain hygiene, clean spaces and sanitation. Now with the increase in the development and psychosocial health issues in children, communities need to focus on a different level of cleaning and soul searching. To work on reducing ADHD, work is required on all fronts, right from education to social spaces, to agriculture, to the environment. This involves creating curricula which involve head, heart and limbs, creating outdoor parks where children can play unhindered in all localities, green buildings, food that is not genetically modified, and soil that is not full of fertilizers. This article provided an overview of the challenges faced by children and how they manifest as ADHD. As corrective measures, one helpful insight provided by Dr. Rudolf Steiner is in the nourishment and education of senses, as a foundation for later life. If care is taken in early childhood to guard senses in terms of balance in movement, beauty in surroundings and goodness in food, many of the issues faced by children could perhaps be prevented.

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