

**“A CLINICAL STUDY ON THE HOMOEOPATHIC MANAGEMENT  
OF ATTENTION DEFICIT HYPERACTIVITY DISORDER”**

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IN

**PAEDIATRICS**

By

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SUBMITTED TO

**THE TAMILNADU Dr. MGR MEDICAL UNIVERSITY,**

**CHENNAI.**

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**ENDORSEMENT BY THE HEAD OF THE DEPARTMENT AND THE  
INSTITUTION**

This is to certify that the Dissertation entitled, “**A CLINICAL STUDY ON THE HOMOEOPATHIC MANAGEMENT OF ATTENTION DEFICIT HYPERACTIVITY DISORDER**” is a bonafide work carried out by **Dr. ABHIJITH RANJAN S**, a student of M.D. (Hom.) in the **DEPARTMENT OF PAEDIATRICS** in **SARADA KRISHNA HOMOEOPATHIC MEDICAL COLLEGE** under the supervision and guidance of **Prof. Dr. P.R. SISIR, M.D. (Hom.), PROFESSOR & HEAD, DEPT. OF PAEDIATRICS** in partial fulfilment of the Regulations for the award of the Degree of **DOCTOR OF MEDICINE (HOMOEOPATHY)** in **PAEDIATRICS**. This work confirms to the standards prescribed by **THE TAMILNADU DR. MGR MEDICAL UNIVERSITY, CHENNAI**.

This has not been submitted in full or part for the award of any degree or diploma from any University.

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## **CERTIFICATE BY THE GUIDE**

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## **DECLARATION**

I, **Dr. ABHIJITH RANJAN S**, do hereby declare that this Dissertation entitled **“A CLINICAL STUDY ON THE HOMOEOPATHIC MANAGEMENT OF ATTENTION DEFICIT HYPERACTIVITY DISORDER”** is a bonafide work carried out by me under the direct supervision and guidance of **Dr.P.R. SISIR, M.D. (Hom.), PROFESSOR & HEAD, DEPT. OF PAEDIATRICS**, in partial fulfilment of the Regulations for the award of degree of **Doctor of Medicine (Homoeopathy)** in **PAEDIATRICS** of **THE TAMIL NADU DR. MGR MEDICAL UNIVERSITY, CHENNAI**. This has not been submitted in full or part for the award of any degree or diploma from any University.

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# **ABSTRACT**

## **BACKGROUND**

Attention Deficit Hyperactivity Disorder is a medical diagnosis that is applied to children, young people and adults who are suffering from significant behavioral and cognitive difficulties in various aspects of their lives. The causes, prevalence and the effect of interventions are still controversial. During the last 10years ADHD has been one of the most widely discussed, observed, described, debated, studied and treated childhood disorder. However Homoeopathy has its scope in managing ADHD symptoms.

## **METHODS**

A clinical study on thirty cases with ADHD was done at Sarada Krishna Homoeopathic Medical College Hospital and its Peripheral Health centers. The study cases were selected randomly as per inclusion criteria and diagnosis was mainly based on the clinical presentation and criteria as per Vanderbilt ADHD Diagnostic Parent Rating Scale. Improvement criteria were based on the symptomatic relief according to Vanderbilt ADHD Diagnostic Parent Rating Scale score chart.

## **RESULTS**

Thirty cases were analyzed. There was a significant difference in the pre and post assessment scores in all the cases in which 57% (17 cases) showed marked improvement. Sulphur was the medicine most used for managing the symptoms. 200c potency was the most used potency of all the 30 cases. According to the study maternal grief during pregnancy may be attributed to the risk factor for developing ADHD. Higher incidence of developmental delay is also a finding.

## **CONCLUSION**

The result of the study drawn that Homoeopathy is very effective in managing patients with ADHD. Homoeopathy treats the patient as a whole and it annihilates the symptoms at the earliest so that the quality of life of the individual, the family and the society can be improved.

**KEY WORDS:** ADHD, Vanderbilt ADHD Diagnostic Parent Rating Scale,  
Homoeopathy

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## LIST OF ABBREVIATIONS USED

SL. NO.	ABBREVIATION	EXPANSION
1.	&	And
2.	<sup>0</sup> F	Fahrenheit
3.	BP	Blood Pressure
4.	%	Percentage
5.	aph, §	Aphorism
6.	eg.	Example
7.	No.	Number
8.	O/E	On Examination
9.	OPD	Outpatient department
10.	IPD	In patient department
11.	Yrs.	Years
12.	i.e.	That is
13.	M	Male
14.	F	Female
15.	ADHD	Attention Deficit Hyperactivity Disorder
16.	MBD	Minimal Brain Dysfunction
17.	DSM	Diagnostic and Statistical Manual of Mental Disorders
18.	ICD	International Classification of Diseases.
19.	APA	American Psychiatric Association
20.	CDC	Center for Disease Control

21.	HKD	Hyper-Kinetic Disorder
22.	MRI	Magnetic Resonance Imaging
23.	VADTRS	Vanderbilt ADHD Diagnostic Teacher Rating Scale
24.	VADPRS	Vanderbilt ADHD Diagnostic Parent Rating Scale

## LIST OF APPENDICES

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## 1.1 INTRODUCTION

“...See the naughty, restless child,  
    Growing still more rude and wild,  
    Till his chair falls over quite.  
Philip screams with all his might,  
    Catches at the cloth, but then  
    That makes matters worse again.  
    Down upon the ground they fall,  
Glasses, bread, knives forks and all.  
    How Mamma did fret and frown,  
When she saw them tumbling down!  
    And Papa made such a face!  
Philip is in sad disgrace....”<sup>[1][11]</sup>

The lines are adopted from a poem belonging to the 19th century, Heinrich Hoffman (1809-1874), a German physician, psychiatrist and poet, wrote about “Fidgety Philip”, who couldn’t sit still. The poem portrays the typical behavior of a child with ADHD, living in those times when children were subject to discipline less permissive than at present.<sup>[2]</sup>

Children are the prime component in the development of the society. In other words they are the citizens of tomorrow. Hence bringing up a healthy

generation is the noblest thing that can be done for the health in future. Nowadays there is a multi-dimensional concept of health that is the health depends on several dimensions like Mental, Physical, behavioral, social, spiritual etc. But if any one or more dimensions become altered then the person become sick which affects the society and the country grossly. ADHD is one of the most common behavioral disorder affecting children. And its appearance and nature is variable in terms of symptoms. That is why approaching it clinically is a challenging task for the physicians.

Health, as defined by the World Health Organization is “a state of complete physical, mental and social well – being and not merely the absence of disease or infirmity.” As the world is changing the word “mental health” is gaining much attention as it is the one most seen disrupted. Ample research and best intervention modalities are made in every spheres of health yet child psychiatry remains the least explored or the unclear picture in the field of medicine.

The conventional tools such as etiology, onset, duration, pathophysiology and management are still being debated since the last 10 years regarding ADHD. The persistence of some of the symptoms from childhood to the rest of the life makes it very essential to identify and find remedial measures for this condition at the earliest.

For more than a hundred years ADHD had been known, but under different names. The condition collectively depicted the children, adolescents and some adults, who are inattentive, easily distracted abnormally overactive and impulsive in their behavior. It is not new diagnosis but a reflection of this 20th century, competitive and fast moving society.

The relevance of this condition in this century is so much advanced because of the nature of the society and its lifestyle i.e. shrinking of families to nuclear families, children suffer due to broken parentage, lack of care from parents, increasing stress from schools, rapid intrusion of multimedia into personal life etc. Though these are not scientifically proven as a strong etiological factor, many studies attribute these to be the probable factors for ADHD.

## **1.2 NEED FOR THE STUDY**

- ADHD is one of the most common behavioral disorder affecting children.
- Researches show that, if untreated, some symptoms of ADHD persist from childhood through adolescence.
- Early and timely intervention can benefit the quality of life of the citizens of tomorrow.

## **1.3 SCOPE OF THE STUDY**

- The change brought about by Homoeopathic intervention in ADHD cases can be assessed.
- The most common type of ADHD prevailing in Kanyakumari district can be estimated.
- The common predisposing factors causing ADHD can be assessed.

- It can be assessed whether there is any relationship between the antenatal stress physical/mental suffered by the mother and the ADHD related symptoms presented by her child.

## **1.4 STATEMENT OF THE PROBLEM**

### **CLINICAL STUDY**

This is a study based on the observation of the symptoms collected from the patients attending the OPD, IPD and peripheral health centers of Sarada Krishna Homoeopathic Medical College. It is an observational study among the patients presenting with the symptoms of Attention Deficit Hyperactivity Disorder by administering Homoeopathic remedies.

### **ATTENTION DEFICIT HYPERACTIVITY DISORDER**

It is the most common neurobehavioral disorder of childhood, one of the most prevalent health conditions affecting school-aged children, and most extensively studied mental disorder of childhood. It comprises of symptoms of hyperactivity, impulsivity, inattention or all mixed to one.

## 2. AIMS AND OBJECTIVES

The following are the aims and objectives of this study:

- To assess the change brought about by Homoeopathic intervention in ADHD cases.
- To know about the most common type of ADHD prevalent in Kanyakumari district.
- To know about common predisposing factors causing ADHD.
- To elicit the relation between the antenatal stress physical/mental suffered by the mother and the ADHD related symptoms presented by her child.

### 3. REVIEW OF LITERATURE

Attention Deficit Hyperactivity Disorder is a medical diagnosis that is applied to children, young people and adults who are suffering from significant behavioral and cognitive difficulties in various aspects of their lives. The causes, prevalence and the effect of interventions are still controversial. During the last 10 years ADHD has been one of the most widely discussed, observed, described, debated, studied and treated childhood disorder.<sup>[3]</sup>

ADHD is characterized by inattentiveness, including increased distractibility and difficulty sustaining attention; poor impulse control and decreased self-inhibitory capacity; and motor over activity and motor restlessness.<sup>[4]</sup>

ADHD may have existed in some form or another since at least as far back as the nineteenth century. One of the first professional reports of the disorder was probably in 1902 in *The Lancet* by George Still, a British pediatrician.<sup>[2][3]</sup>

It has been known by various names such as hyperkinetic syndrome, Strauss syndrome, Minimal Brain Dysfunction (MBD) and Minimal Brain Damage.<sup>[5]</sup> Hyperactive children tend to talk continuously and to be socially intrusive and immature. Recent research has shown that many ADHD children show deficits on neuropsychological testing that were related to poor academic functioning.<sup>[6]</sup>

There is sufficient evidence to say that the incidence of ADHD has been raising due to multitude of causes, the chief being the intrusion of multimedia early in the life of a growing child and the inability of the neuro –physiological mechanism to cope with the rapidly changing stimuli.<sup>[7]</sup>

The first appearance of this condition in DSM-II (1968) used the term hyperkinetic reaction of childhood or adolescence. Whereas in 1980, the DSM-III recognized two sub- types of a syndrome of attention deficit disorder (ADD) – ADD with hyperactivity and ADD without hyperactivity. In 1987, the DSM-III was reconstituted (DSM-III-R) and the term Attention-Deficit Hyperactivity Disorder (ADHD) was coined. Finally, in 1994, the DSM-IV recognized three subtypes of the syndrome: ADHD-inattentive type, ADHD-hyperactive-impulsive type, and ADHD-combined type. A minimum number of criteria should be positive for the diagnosis of each subtype. <sup>[2][8]</sup>

In 40-50% of ADHD affected children, the disorder appears to persist with differing manifestations into adulthood, and leads to significant under and unemployment, social dysfunction, and a heightened risk of anti-social behaviors including substance abuse, difficulties in maintaining relationships, and encounters with the law. <sup>[4]</sup>

### **3.1. DEMOGRAPHIC FACTORS OF ADHD**

There are certain demographic factors that affects the risks of being diagnosed with ADHD. Children living in households where English is the main language are more than four times as likely to be diagnosed as children living in households where English is the second language. And children living in households that are in poverty level have a higher risk than children from higher-income households.

Some conditions may affect certain races in different ways, but ADHD impacts children of all races. From 2001 to 2010, the rate of ADHD among non-Hispanic black girls increased over 90 percent.

ADHD affects children of all races, including:

Whites: 9.8%

Blacks: 9.5%

Latinos: 5.5% <sup>[9]</sup>

Studies using the broader based DSM categories show the highest estimates ranging from between 5% to 10% of children between the ages 5 and 12 years. In the more narrowly defined ICD types, estimates are generally between 1% and 2% for the full syndrome without co-morbid features. <sup>[10]</sup>

### **3.2. MALE PREDOMINANCE**

Surveys show that ADHD symptoms are seen commonly among boys. In clinic- referred samples of patients, the ratio of boys to girls with ADHD has been reported to be from 2:1 to 10:1. Whereas among non-referred children (community surveys) the ratio is closer to 3:1. This higher ratio of boys to girls seen in clinical surveys may be a reflection of referral bias. Boys are more likely than girls in expressing their frustration by being antisocial or aggressive. These behaviors are the most disruptive and thus result in a compulsory visit to a clinic. <sup>[11]</sup>

Cases and diagnoses of ADHD have been increasing dramatically in the past few years. The American Psychiatric Association (APA) cites that 5% of American children are suffering from ADHD. Centers for Disease Control and Prevention (CDC) cites it to be double the number found by APA, 11% of American children aged 4 – 17 had symptoms of ADHD as of 2011. There is a 42 percent rise in just eight years. <sup>[9]</sup>

In the United Kingdom it is very difficult to assess the accurate prevalence figures. Taylor and Hemsley suggest that 0.5 – 1 per cent of children in the UK have ADHD or hyperkinetic disorder (HKD). In other words, on an average, in a class of 30 children it is likely that at least one child will have ADHD. <sup>[3]</sup>

In a study conducted at Vanderbilt University, Nashville, which involved 8000 children in a Tennessee county, with ratings done by 400 teachers, the of prevalence of ADHD were estimated to be higher when using the new diagnostic criteria listed in DSM-IV, as compared to DSM-III-R criteria (Wolraich et al., 1996). Prevalence rates were 7% for ADHD using DSM-III-R, and 11% with DSM-IV criteria, i.e. an increase of 57%. The inattentive subtype of ADHD occurred in 5%, the hyperactive-impulsive (H-I) type in 2.5%, and the combined type in 3.5%. Boys were more affected than girls with a 4:1 ratio for the ADHD-HI and 2:1 for ADHD-AD type. <sup>[2]</sup>

### **3.3. Prevalence of Parent-Reported ADHD Diagnosis and Associated Treatment among U.S. Children and Adolescents, 2016**

This study was conducted to estimate the national prevalence of parent-reported attention deficit/hyperactivity disorder (ADHD) diagnosis and its treatment among U.S. children 2–17 years of age using the 2016 National Survey of Children’s

Health (NSCH). The NSCH is a national perspective, cross-sectional survey of parents regarding their children's health. It included indications of lifetime receipt of an ADHD diagnosis by a health care provider, whether the child currently had ADHD symptoms, and receipt of medication and behavioral therapy for ADHD. Weighted prevalence estimates were calculated overall and by demographic and clinical subgroups (in which n = 45,736). In 2016, an estimated 6.1 million U.S. children 2–17 years of age (9.4%) had ever received an ADHD diagnosis. Of these, 5.4 million currently had ADHD, which constituted 89.4% of children ever diagnosed with ADHD and 8.4% of all U.S. children 2–17 years of age. Of children with current ADHD, almost two thirds (62.0%) were taking medicine and slightly less than half (46.7%) had received behavioral therapy for ADHD in the past year; nearly one fourth of them (23.0%) had received neither treatment. Similar to estimates from previous surveys, there is a large population of U.S. children and adolescents who have been diagnosed with ADHD symptoms by a health care provider. Most of these children had received treatment that appears to be consistent with professional guidelines, though the survey questions were limited in detail about specific treatment types they received. <sup>[12]</sup>

### **3.4. THE GLOBAL SCENARIO**

Studies of the prevalence of ADHD across the globe have generally reported that 5-10% of school aged children are affected with this condition. Rates may be higher if symptoms (inattention, impulsivity, hyperactivity) are considered in the absence of functional impairment.

The prevalence rate in the adolescence sample is 2-6%. Approximately 2% of the adult have ADHD. <sup>[4]</sup>

### **3.4.1. Persistence of Parent-Reported ADHD Symptoms from Childhood through Adolescence in a Community Sample.**

A study was conducted to examine ADHD symptom persistence and the factors associated with elevated symptom counts in a diverse, longitudinal community-based sample.

Parents reported demographics and completed a diagnostic interview repeatedly over a 6-year period. Finally 1,481 interviews were completed for children (5-13 years); all participants were invited to four annual follow-up interviews, and 379 (79%) completed at least one. Inattentive (IA) and hyperactive-impulsive (HI) symptom counts were modeled with logistic quartile regression, while accounting for the study design complexities.

The prevalence of seven Inattention (IA) symptoms remained stable from early childhood through late adolescence. The prevalence of eight of the Hyperactive/Impulsive (HI) symptoms decreased by more than half over time. After certain demographic adjustment, the upper quartile of HI symptom counts decreased with age (in which  $p$  value  $< .01$ ). High HI symptom counts continued more among those with high IA symptom counts ( $p = .05$ ). This study further made it clear and provided insights into ADHD symptom trajectory through adolescence. <sup>[13]</sup>

### **3.4.2. Attention-Deficit/Hyperactivity Disorder Medication Prescription Claims among Privately Insured Women Aged 15–44 Years — United States, 2003–2015**

This study conducted in U.S again makes it clear that symptoms of ADHD has a trajectory into adulthood. Approximately 2.3 – 6.8 million (median = 4.6 million) reproductive-aged women who are privately insured in U.S took part in the analytic sample each year during 2003–2015. The percentage of reproductive-aged women

with private insurance who required a prescription for any ADHD medication increased 344% from 2003 (0.9%) to 2015 (4.0%). The increase in the percentage of women prescribed with ADHD medications was confined to a rise in the prescribing of stimulant medications. <sup>[14]</sup>

Although no clear cut data exist, 50% of adolescents will continue to have ADHD into adulthood. <sup>[11]</sup>

The incidence of ADHD symptoms is seen increased in children with certain neurologic disorders such as epilepsy, neurofibromatosis, tuberous sclerosis etc. <sup>[4]</sup>

### **3.5. INDIAN SCENARIO**

There was a cross – sectional study of school aged children between 6-11 years among various schools of Coimbatore District. The diagnostic tool used was Conner’s Abbreviated Rating Scale. The tool was entrusted with parents and teachers to be filled and returned.

The prevalence of ADHD among school children was found to be 11.32%.

Prevalence was found higher among the males (66.7%) as compared to that of females (33.3%).

Among middle socio-economic group the prevalence was 6.84%.

Among lower socio-economic group the prevalence was 16.33%.

Maximum prevalence was found to be in age 9-10 years.

The co – morbid conditions associated with ADHD were identified as poor academic performance, behavioral difficulty, reading difficulty and dysgraphia.

39% of ADHD patients were found to have a specific reading difficulty in outpatient clinical settings.

Among 36.11% of ADHD children certain behavioral disorders co-existed.

The significant finding of this research was that the prevalence of ADHD between the children from the lower and those from middle economic status was quite different. Hence poor economic background is one of the important risk factor for the development of ADHD according to Indian setting. <sup>[15]</sup>

### **3.6. ETIOLOGICAL CLASSIFICATION:**

The etiologies of ADHD are sometimes classified by the time of their occurrence

(1) Pre-natal; (2) perinatal; (3) postnatal.

Prenatal causes include developmental cerebral abnormality, maternal anemia, toxemia of pregnancy, alcohol and cocaine abuse, and tobacco smoke. Exposure to viral infections, especially influenza and viral exanthema, in the first trimester of pregnancy or at the time of birth has been correlated with diagnosis of ADHD.

Perinatal etiological factors include premature birth, breech delivery, anoxic –ischemic- encephalopathy, cerebral haemorrhage, meningitis and encephalitis.

Postnatal causes of ADHD include a history of head injury, meningitis, encephalitis, frequent attacks of otitis media, or low blood sugar. Drugs used to treat childhood illnesses, asthma and epilepsy, frequently cause or aggravate hyperactive behavior and result in inattention and learning deficits. <sup>[2]</sup>

Most of the available evidence point to brain –based abnormalities in executive function in self-regulation, arousal, motivation, cognitive flexibility and working memory arising primarily as a failure of dopaminergic neural system to evolve normative reward systems in the developing brain. <sup>[10]</sup>

Mothers of children with ADHD symptoms are found to have experienced birth complications, such as toxemia, prolonged labor, and complicated delivery. Maternal drug use, smoking and alcohol use during pregnancy, lead or mercury exposure (prenatal or postnatal) are commonly connected to attention difficulties associated with the development of ADHD. <sup>[4]</sup>

The genetic etiology to ADHD has been proposed to be the Dopamine transporter gene (DAT1), and also a dopamine receptor gene (DRD4). Additional genes such as DOCK2 that is associated with a peri-centric inversion, which is involved in cytokine regulation, serotonergic genes such as 5HTT, HTR1B and SNAP-25 (synaptosomal associated protein). <sup>[4]</sup>

Among ADHD children 20% of them were found to have suffered a severe traumatic brain injury and subsequent onset of substantial symptoms of impulsivity and inattention. The condition ADHD itself predisposes children again to further brain injury because they loses balance or as a part of their impulsive behavior.

Structural anomalies of brain also has been attributed to the cause of ADHD. Dysregulation of frontal subcortical circuits, shrunken cortical volume, abnormalities of cerebellum. With the aid of functional MRI abnormalities in neural circuits have been identified. <sup>[4]</sup>

### 3.7. CLINICAL FEATURES

The introduction of Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> edition, DSM-IV criteria led to the diagnosis of ADHD. But mostly it was based on the field trials of children aged between 5-12 yrs. There have been only few studies based on the DSM-V criteria. According to which the behavior must be developmentally inappropriate i.e. it must be evidently differing from that of the same age developmental level.

Symptoms must be present before the age of 12, must be present at least for 6 months, in 2 or more settings and must be reported by independent or trustworthy observers and that should not be secondary to another disorder.

According to the DSM V criteria there are 3 subtypes of ADHD:

- Predominantly inattentive
- Predominantly Hyperactive- impulsive type
- Combined type

The child should have the following symptoms for 6 or more months and also to a degree that is greater than that of other children of the same age.

Children who have symptoms of inattention may:

- Be easily distracted, miss details, switches from one activity to another
- Faces difficulty in focusing in one thing

- Gets bored with a task within a few minutes, unless they are doing something enjoyable.
- Difficulty in focusing attention on organizing and completing a task or learning something new.
- Have trouble completing or turning in homework assignments , often losing things
- Doesn't seem to listen when spoken to
- Day dreaming , easily confused , and moves slowly
- Have difficulty processing information as quickly and accurately.
- Struggle to follow instructions.

Children who have hyperactivity may:

- Fidget and squirm in their seats
- Non-stop talking
- Dash around, touching or playing with anything and everything in site
- Have trouble sitting during still during dinner, school, and story time.
- Constantly moving
- Have difficulty doing quiet tasks or activities.

Children with impulsivity may present with:

- Impatience

- Blurt out inappropriate comments, show their emotions without restraint, and act without regard for consequences
- Have difficulty waiting for things they want or waiting their turns in games
- Often interrupt conversations or other activities. <sup>[4] [16] [17]</sup>

### **3.8. DIAGNOSIS**

Its diagnosis is done by assessing whether the child's specific behaviors met the diagnostic and statistical manual of mental disorders-IV-revised criteria. These criteria define three subtypes of ADHD:

1. ADHD primarily of the inattentive type (ADHD/I)
2. ADHD primarily of the hyperactive –impulsive type (ADHD/HI)
3. ADHD, combined type (ADHD/C)

A child meets the diagnostic criteria for ADHD by documentation of

- Presence of at least six of nine behaviors described in inattentive domain (ADHD/I), or the hyperactive or impulsive domain (ADHD/HI), or in both domains (ADHD/C), and these behavior should be occurring often and to the degree that is maladaptive and inconsistent with the child's developmental level.
- Presence of these behaviors in two or more settings for at least past 6months.

- Presence of some symptoms of ADHD before 7yrs of age.
- Clear evidence of clinically significant impairment in academic or social functioning, or both.

These symptoms should not occurring extensively during the course of a pervasive developmental disorder, schizophrenia or another mental disorder. <sup>[18]</sup>

### **3.9. RATING SCALES FOR ASSESSING ADHD SYMPTOMS**

Rating scales for ADHD are useful for a number of purpose including arriving at a thorough diagnosis, excluding other differential diagnosis, making it easy for screening a large number of population thereby an early intervention is possible.

#### **(a) VANDERBILT ADHD PARENT AND TEACHER RATING SCALE**

Includes both teacher and parent reported symptoms; VADTRS and VADPRS. Other conditions such as Opposite Defiant Disorder and Conduct Disorder and a subscale for anxiety and depression are included in this scale. This assesses the child in both school and home settings.

They are psychometrically strong scales that is useful in identifying ADHD. The additional subscales make it helpful to identify the co-morbid features thereby helping in research activities.

#### **(b) Narrow Band Scales**

Based on DSM-IV and has a good validity. Require adult informant.

#### **(c) CONNER’S Rating Scale Revised**

This scale is evidence based with both normative and clinical populations. Age and gender are considered in this format. Parent and teacher are the informants. This scale also includes an adolescent self-reporting version.

It is lengthy to administer, time consuming. And is difficult in using among low literacy informants.

(d) IOWA CONNER'S Teacher Rating Scale

It is a 10 item scale including 5 for inattentive and 5 for aggression symptoms. Parent teacher and adolescent reports are there. It is not a sole tool for diagnosis.

(e) ADHD RATING SCALE –IV

This consist of two subscales for inattentive and hyperactive/impulsive. It has a large ethnically and geographically normative base and strong psychometric properties. It is easy to score sensitivity to treatment, used for monitoring too. <sup>[8]</sup>

### **3.10. MANAGEMENT**

Children are the prime component of the society. Nowadays there is an emerging multi-dimensional concept of health that is the health depends on several dimensions like Mental, Physical, behavioral, social, spiritual etc. If any one or more dimensions becomes altered then the person gets sick which affects the society and the country in gross manner. ADHD, its appearance and nature, is variable in terms of symptoms. That's why approaching it clinically is a challenging task for the physicians.

Therefore the concept of approaching ADHD cases should be multi-directional. It depends on the ages of the patient. According to the American Academy of Pediatrics (AAP) guidelines (2011) behavior therapy is the recommended as the first line treatment for Attention-Deficit/Hyperactivity Disorder (ADHD) in young children, and should be tried before medical therapy.

**Behavioral therapy** consists of some important rules. It starts in just common sense parenting. When parents become trained in behavior therapy, they learn skills and strategies in helping their child with ADHD succeed at school, at home, and in social relationships. It should be administered by parents with the help of teachers, trainers and doctors so that the children can better control their own behavior, improve functioning skill, and better response in maintaining social relationships. Learning, practicing and administering behavior therapy requires time and effort, but it has promising and lasting benefits for the child.

Certain studies have shown that nutritional supplements are also helpful in improving ADHD. Like foods rich in protein i.e. lean beef, pork, poultry, fish, eggs, beans, nuts, soy, and low-fat dairy products along with vitamin B6, B12 can have beneficial effects on ADHD symptoms. <sup>[19]</sup>

### **3.11. MEDICATIONS**

Pre-synaptic dopaminergic agonists which are commonly called as psycho-stimulant medications are the drugs of choice. For example Ritalin, Concerta, Metadate etc are used to control ADHD symptoms.

The physician increases the dose of medications over the first 4 weeks keeping the side effects to minimum. In case side effects come up then the physician goes an alternative set of medicines. Medicines such as Guanfacines, which was originally developed as an anti-hypertensive, is being prescribed to control the impulsive behavior of an ADHD patient.

Evidences suggest that the children under these medications have a higher risk of adverse cardiovascular events such as sudden cardiac death, myocardial infarction and stroke. <sup>[4]</sup>

### **3.12. HOMOEOPATHIC APPROACH**

Homoeopathic Research Institute conducted a research lead by Ms. Philippa Fibert in which ADHD children who received conventional treatment were compared to those receiving Homoeopathic treatment. An analysis of variance (ANOVA) found a significant interaction between time and the treatment received. It was found that children receiving Homoeopathic medicine continued to improve. Half of the participants registered improvement scores over 10 percentiles, a quarter of them received improvement over 20 percentiles and another quarter less than 10 percentiles. <sup>[20]</sup>

It becomes necessary to do treatment on focusing to the particular symptoms like hyperactivity, sleeplessness etc. but for a better response we must have to focus constitutional treatment and for that a complete and thorough study of anamnesis is essential.

In §5 of ‘Organon of Medicine, 5th edition’, Dr. Hahnemann said that most significant points in the whole history of the disease are necessary for a successful

treatment. So that in these cases it happens frequently that maternal history becomes very important. Otherwise the constitution, temperament of the patient, tendencies, and clarity of some presenting characteristics helps to understand the case. But every case has their variable approaches.

Importance of Totality : A successful application of the law of similar rest entirely on the ability of the prescriber to identify a portrait in a picture gallery of the Homoeopathic Materia Medica as exactly similar to the portrait of the disease as revealed by the patient. Totality of symptom in aphorism §18 „, the sum of all symptom in each individual cases of disease must by sole indication, the sole guide to direct us in the choice of remedy. Totality characterizes and individualizes the whole person with sickness and hence it is only basis for selecting appropriate remedy. <sup>[21]</sup>

Organon of medicine (6th edition, aphorism § 211), — This state holds good to such an extent, that the disposition of the patient often chiefly determines the selection of the homoeopathic remedy, as being decidedly characteristic symptom which can least of all remain concealed from the accurately observing physician. This pre-eminent importance of the emotional state holds good to such an extent that the patient's emotional state often tips the scale in the selection of homoeopathic remedy. This is a decidedly peculiar sign which among all the signs of disease, can least remain hidden from the exactly observing physician. Here master focuses on mind, on behavioral expression and physician's role in observing. Homoeopathy is a psychosomatic medicine. It recognizes the role of mind in the genesis, maintenance and the development of ia disease and gives prime importance to mental expression, disposition and state that expresses in the form of behavioral expression. <sup>[22]</sup>

### **3.13. The Soul of Paediatric Case taking:**

The heart of Paediatric case taking depends on observation. The physician should first have an idea of “what to be observed” in a child and proper interpretations have to be drawn. Confirmation of this data by interrogating the mother is the next step.

In school going children the comment of the teacher is pivotal and the report card gives essential hints. The cluster of posture or gesture that the child is rooted to gives an idea regarding the core presentation. Every behavioral expression of the child has a meaning and an interpretation. <sup>[23]</sup>

Common expressions of the child with Attention Deficit Hyperactivity Disorder are inattentive, restless, forgetful, impulsive, loquacity, disturbed left and right discrimination, tends to miss out the word while writing etc. Every ADHD child has characteristic expression as per unique constitution. This characteristic expression individualizes the child from others and helps in building up a totality for the selection of a remedy. <sup>[16]</sup>

## **4. MATERIALS & METHODS**

### **4.1. SOURCE OF DATA**

30 selected cases of the patients with ADHD symptoms visiting the OPD, IPD and Peripheral Health Centers of Sarada Krishna Homoeopathic Medical College. Age groups of 5-18 years were taken for the study.

### **4.2. METHOD OF COLLECTION OF DATA**

- ◆ Sample Size – Minimum 30 cases.
- ◆ Sampling Technique – Random Sampling.
- ◆ Cases have been recorded in standardized pre structured case format.
- ◆ The cases were recorded according to holistic concept by interview technique and observation.

### **4.3. INCLUSION CRITERIA**

- Both sexes are included
- Children between 5-18 years of age
- All types of diagnosed cases of ADHD

### **4.4. EXCLUSION CRITERIA**

- Patients with severe systemic illness and who are under long term medication.

- Patient who have other behavioral problems such as Oppositional behavioral disorder, conduct disorder.

#### **4.5. METHODOLOGY**

Random selection of 30 cases of patient with ADHD from the OPD, IPD and Rural Centers of Sarada Krishna Homoeopathic Medical College.

The case details were recorded in standardized pre structured case format of Sarada Krishna Homoeopathic Medical College Hospital.

The case history was taken with holistic concept (etiological factors, mental generals, physical generals, concomitants, characteristics particulars).

Diagnosis was done according to clinical presentation, Vanderbilt ADHD Diagnostic Parent Rating scale, clinical history and physical examination of patient.

Then the case were analyzed and the totality were erected. Then the symptoms were evaluated.

Case taking, medicine and potency selection, and follow-up was made based on the homoeopathic principles according to Organon of medicine.

Repetition and change of potency and remedy were done as and when needed according to Homoeopathic principles based on Organon of medicine.

Pre and Post assessment was done using Vanderbilt ADHD Diagnostic Parent Rating scale.

## 5.1. OBSERVATION

This section contains the statistical analysis of the 30 cases that presented with Attention Deficit Hyperactivity Disorder.

### 5.1.1 DISTRIBUTION OF CASES ACCORDING TO AGE

TABLE NO: 1

SL NO:	AGE	NO OF CASES
1	5yrs	1
2	6yrs	6
3	7yrs	2
4	8yrs	2
5	9yrs	3
6	10yrs	4
7	11yrs	5
8	12yrs	2
9	13yrs	3
10	14yrs	1
11	16yrs	1

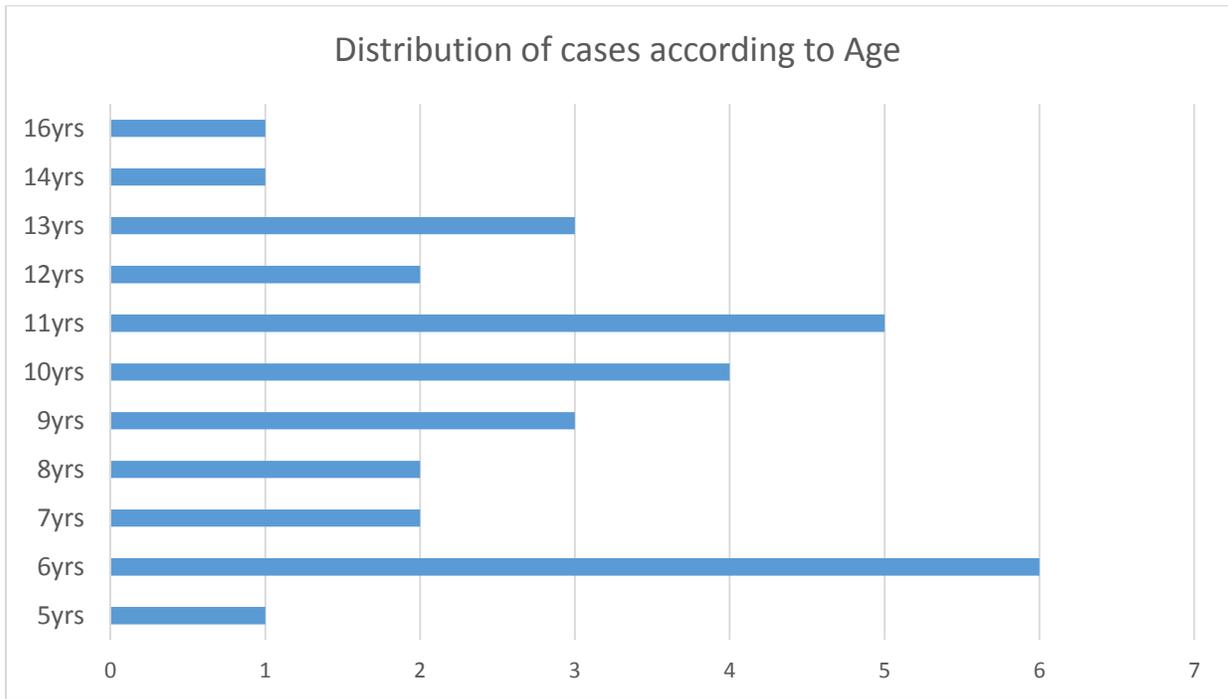


Chart No: 1

In this study the maximum age prevalence of ADHD Is found to be 6years which accounts for 6 cases (20%), followed by 11 years (17%), 10 years (13%), 9 years and 13 years 10% each, followed by 7,8 and 12 years 7 % each. 5, 14 and 16 years are found to be having 3% prevalence.

## 5.1.2 DISTRIBUTION OF CASES ACCORDING TO SEX

Table No: 2

MALE	FEMALE
19	11

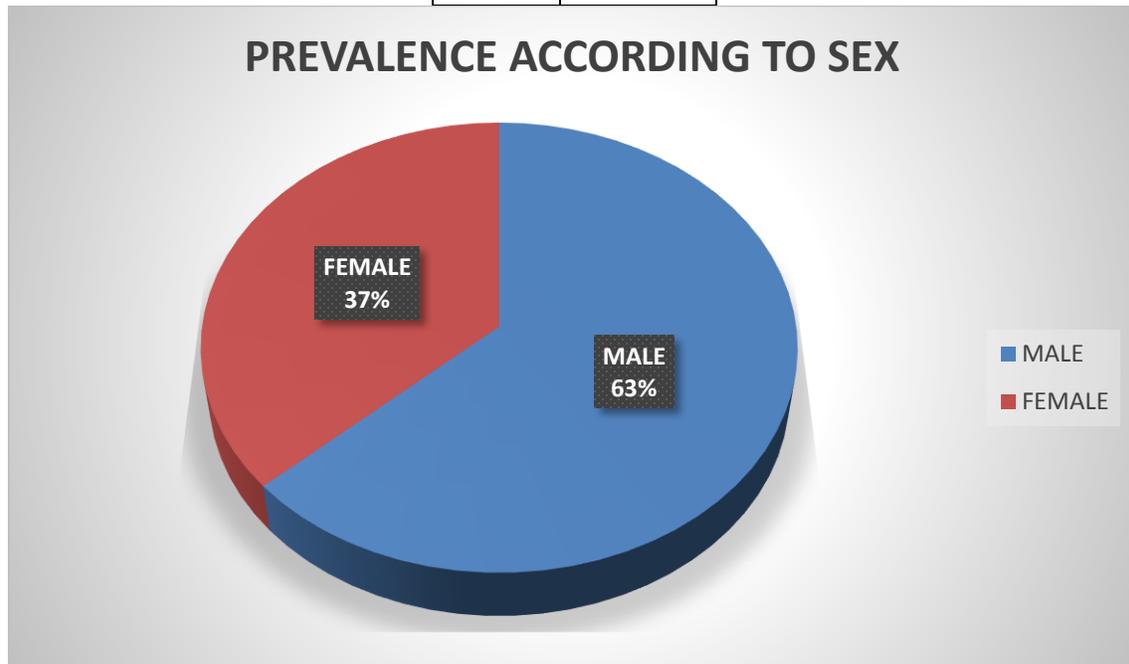


Chart No: 2

In this study it was found that males are having a higher prevalence where 19 cases (63%) were constituted by them whereas females were 11 in number (37%).

### 5.1.3. DISTRIBUTION OF CASES ACCORDING TO FAMILY HISTORY

TABLE NO: 3

SL NO:	FAMILY HISTORY	NO OF CASES
1	Diabetes mellitus	10
2	Hypertension	8
3	Asthma	7
4	Hyperlipidaemia	2
5	Epilepsy	2
6	Hypothyroidism	1
7	Tuberculosis	1
8	Sinusitis	1
9	Mental Retardation	1
10	Eczema	1
11	Rheumatism	1

12	Colon cancer	1
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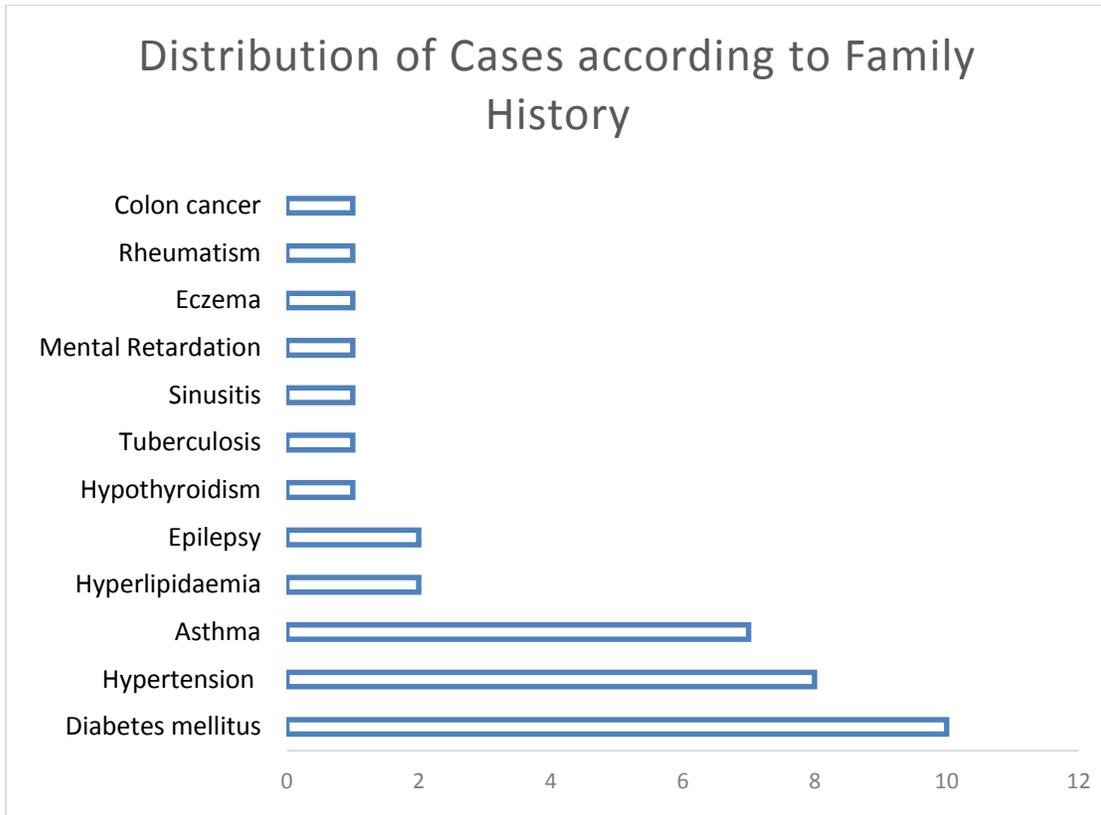


CHART NO: 3

In this study the most prevalent family history among ADHD affected children was a family history of Diabetes Mellitus which accounted for 10 cases overall (28%), followed by Hypertension 8 cases (22%), Asthma 7 cases (19%), Hyperlipidaemia and Epilepsy 2 cases each (5%), 1 case each having a family history of Hypothyroidism, Tuberculosis, sinusitis, mental retardation, eczema, rheumatism and colon cancer.

**5.1.4. DISTRIBUTION OF CASES ACCORDING TO THE TYPE OF  
ADHD**

TABLE NO: 4

INATTENTION	HYPERACTIVE	COMBINED
17	0	13

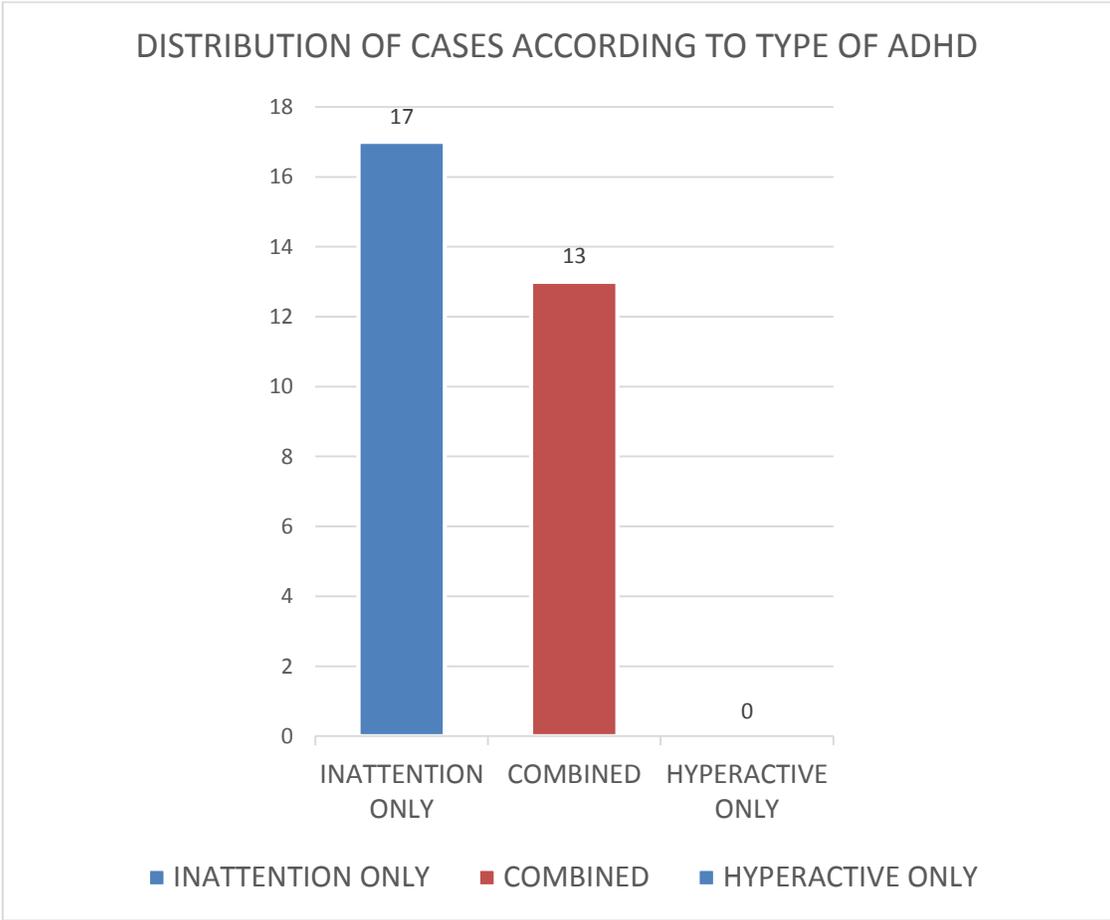


CHART NO: 4

Out of the 30 cases included in the study the Inattentive Type of ADHD outnumbered the others by accounting for 17 cases which is 57%. And the rest of the 13 cases qualified for both inattentive and hyperactive which is Combined type (43%). However, there were no cases qualifying solely for hyperactive type.

**5.1.5. DISTRIBUTION OF CASES ACCORDING TO ANTE-NATAL HISTORY**

TABLE NO: 5

NO: OF CASES WITH RELEVANT ANTE-NATAL HISTORY	24
NO: OF CASES WITHOUT RELEVANT ANTE-NATAL HISTORY	6
TOTAL NO: OF CASES	30

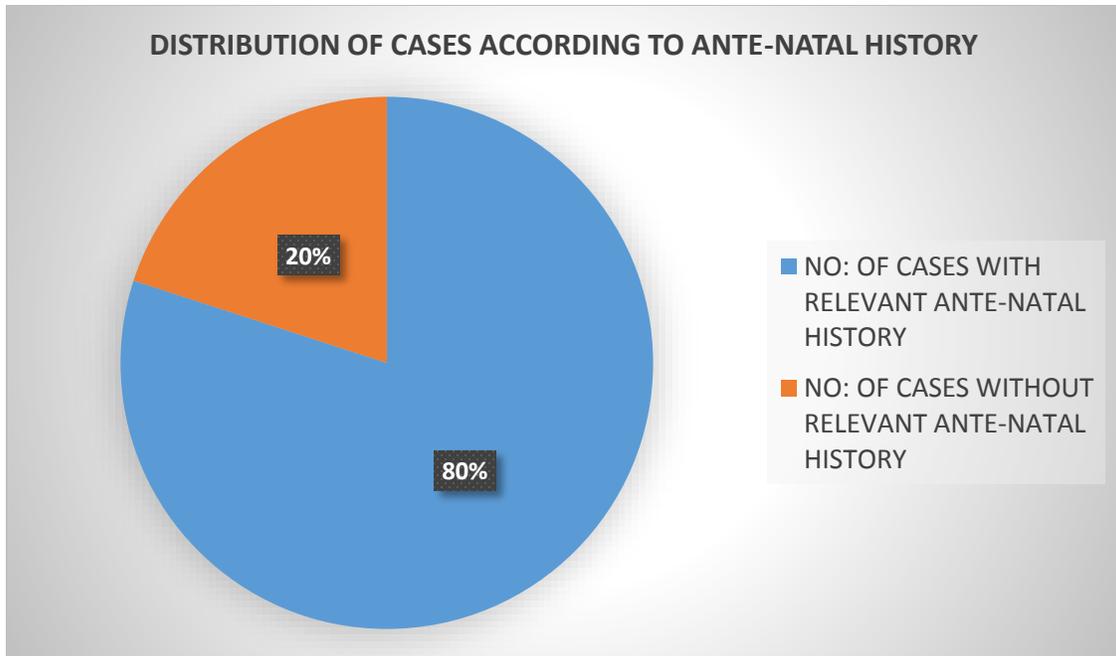


CHART NO: 5

In this study, 24 cases (80%) out of 30 had relevant ante-natal history.

### 5.1.6. DISTRIBUTION OF CASES ACCORDING TO ANTENATAL DISEASE

TABLE NO: 6

SL NO:	ANTE-NATAL DISEASE	NO OF CASES
1	Maternal Grief during pregnancy	5

2	Epilepsy	4
3	Hypertension	4
4	Hyperemesis	2
5	Severe Abdominal pain	2
6	Diabetes Mellitus	2
7	Delayed Labour	1
8	Chicken Pox	1
9	Hypothyroid	1
10	Vertigo	1
11	Chickun-gunya	1
12	Oligohydramnios	1

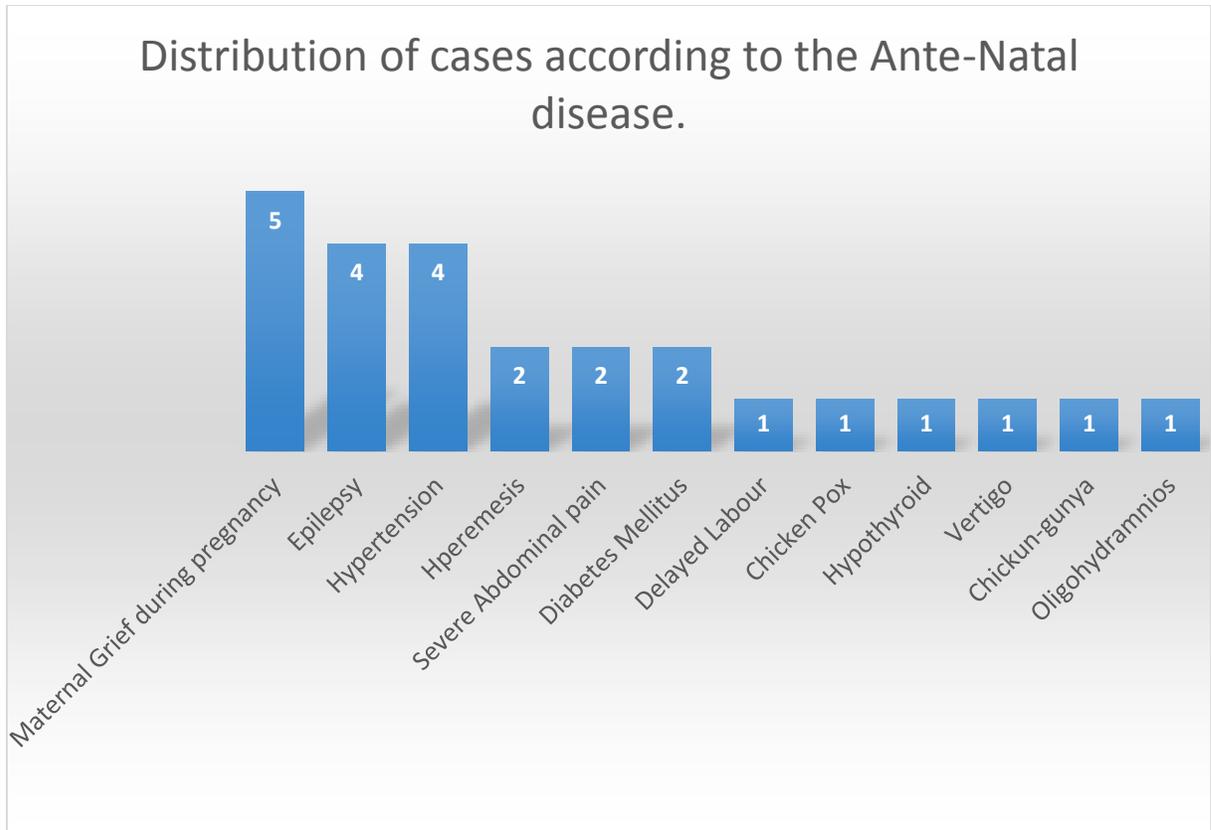


CHART NO: 6

In this study, out of 24 cases which had relevant ante-natal history, 5 cases (20%) were found to have an ante-natal history of grief suffered by mothers during pregnancy. Mothers of 4 cases each had epilepsy and hypertension. There were 2 cases each which had hyperemesis, gestational diabetes and severe abdominal pain. 1 case each had delayed labour, chicken pox, hypothyroid, vertigo, chicken-gunya and oligohydramnios.

### 5.1.7. DISTRIBUTION OF CASES ACCORDING TO THE POST-NATAL HISTORY

TABLE NO:7

NO: OF CASES WITH POST NATAL HISTORY	16
NO: OF CASES WITH OUT POST NATAL HISTORY	14
TOTAL NUMBER OF CASES	30

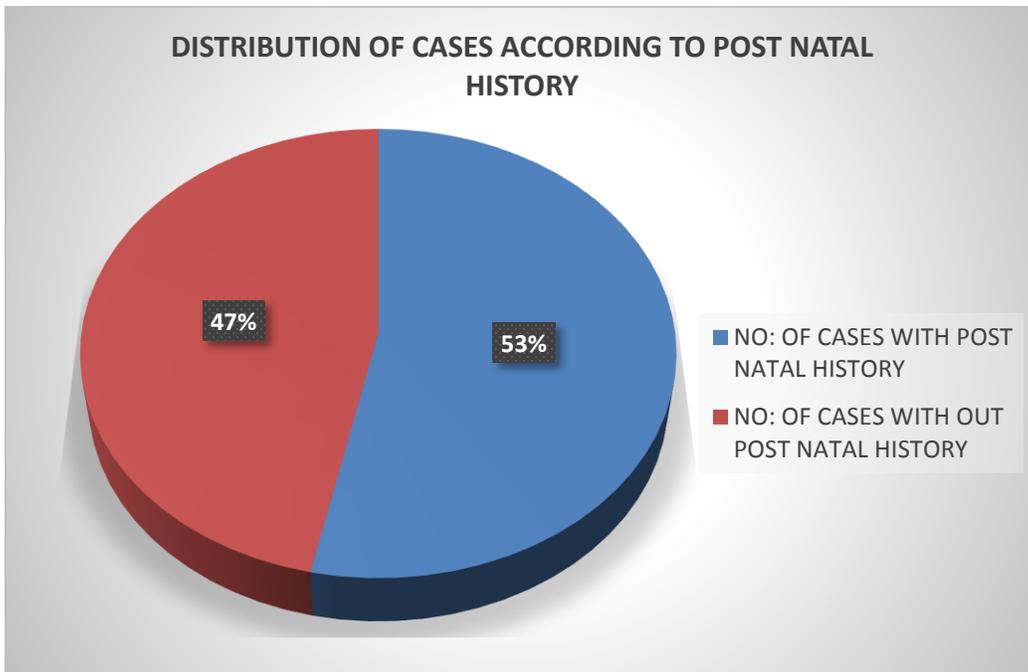


CHART NO: 7

In this study, out of 30 cases, 16 cases (53%) had relevant post natal history.

### **5.1.8. DISTRIBUTION OF CASES ACORDING TO TYPE OF POSTNATAL DISEASE**

TABLE NO: 8

SL NO:	POST-NATAL DISEASE	NO OF CASES
1	Delayed Milestones	9
2	Epilepsy	2
3	Low Birth Weight	2
4	Congenital Anomaly	1
5	Aspiration Syndrome	1
6	Hypotonia	1
7	Over Weight	1

## DISTRIBUTION OF CASES ACCORDING TO TYPE OF POSTNATAL DISEASE

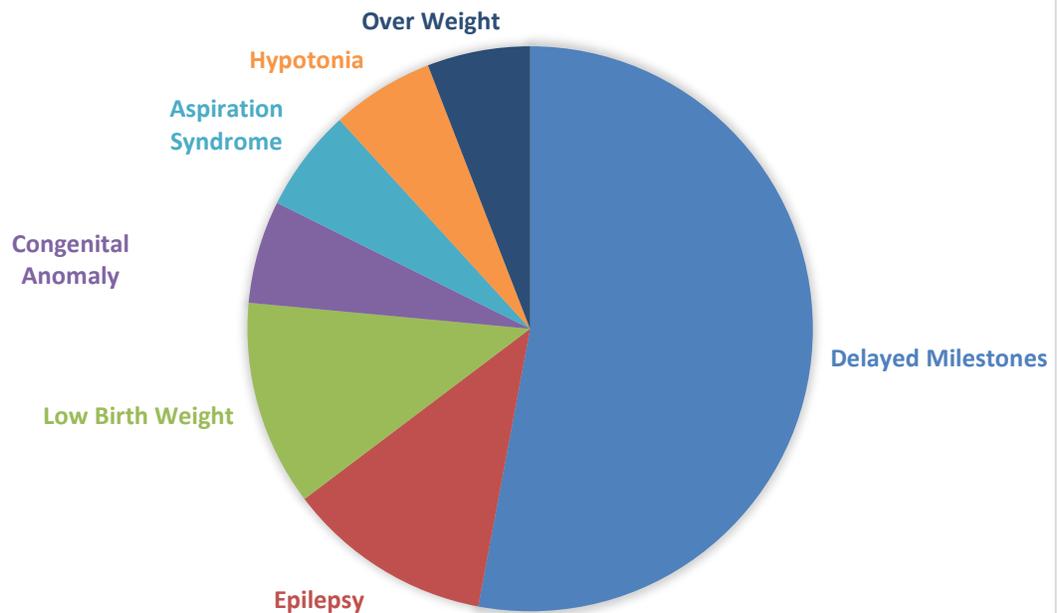


CHART NO: 8

In this study, out of 16 cases which had relevant post natal factors, 9 cases (53%) were found to have delayed milestones, 2 cases each had epilepsy and low birth weight. One case each had congenital anomaly, aspiration syndrome, hypotonia and overweight.

### 5.1.9. DISTRIBUTION OF CASES ACCORDING TO MEDICINE

TABLE NO: 9

SL NO	MEDICINE	NO OF CASES
1	SULPHUR	5
2	CALCAREA CARBONICA	4
3	SILICEA TERRA	4
4	LYCOPODIUM	4
5	CALCAREA PHOS	2
6	BARYTA CARB	2
7	PHOSPHORUS	2
8	NUX.VOMICA	1
9	BELLADONA	1
10	TUBERCULIN	1
11	STAPHYSAGRIA	1

12	STRAMONIUM	1
13	LACHESIS	1
14	NATRUM MURIATICUM	1

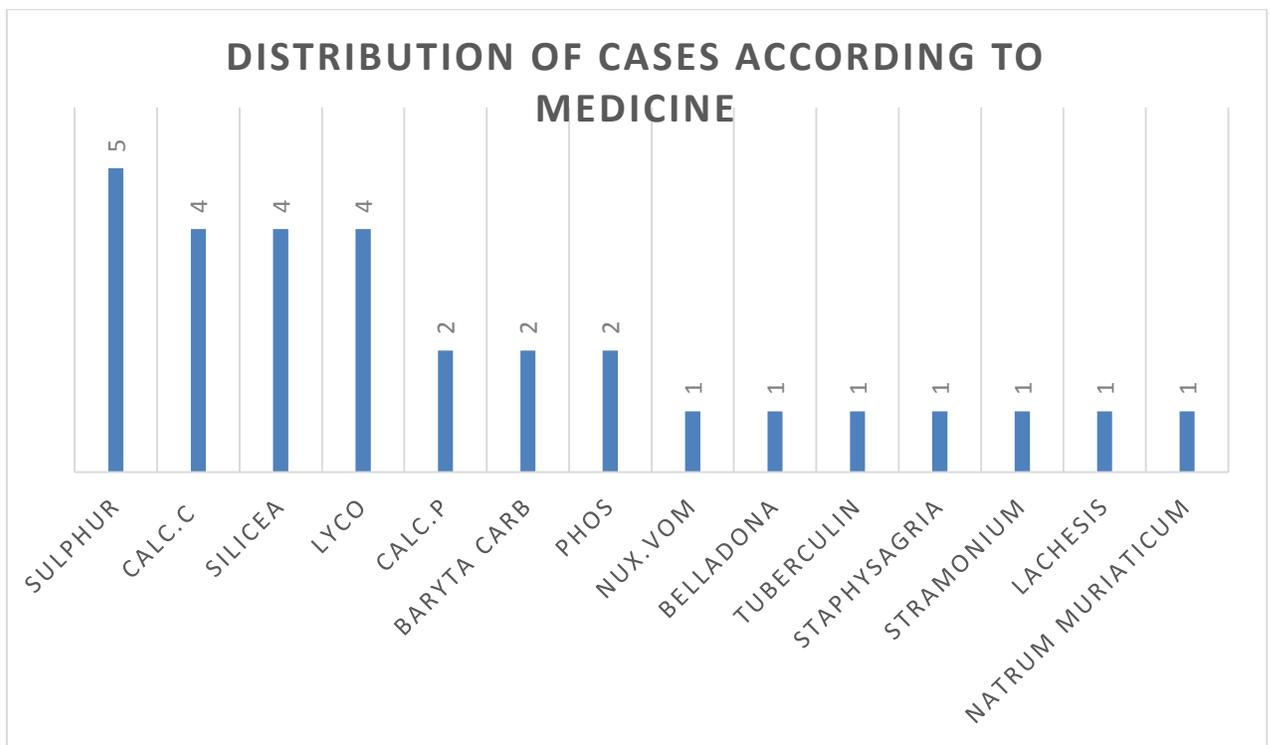


CHART NO: 9

In this study it was found that the medicine mostly prescribed for ADHD is Sulphur, 5 cases. Followed by Calcarea carb, Silicea and Lycopodium which constituted 4 cases each. Calcarea phos, Baryta carb and Phosphorus were given to 2 cases each. Remaining 7 cases each were given Nux vomica, Belladonna, Tuberculin, Staphysagria, Stramonium, Lachesis, Natrum Muriaticum.

### 5.1.10. DISTRIBUTION OF CASES ACCORDING TO POTENCY

TABLE: 10

SL NO	POTENCY	NO OF CASES
1	200 C	12
2	0/1	9
3	0/3	5
4	1M	3
5	30 C	1

Distribution of cases according to the Potency

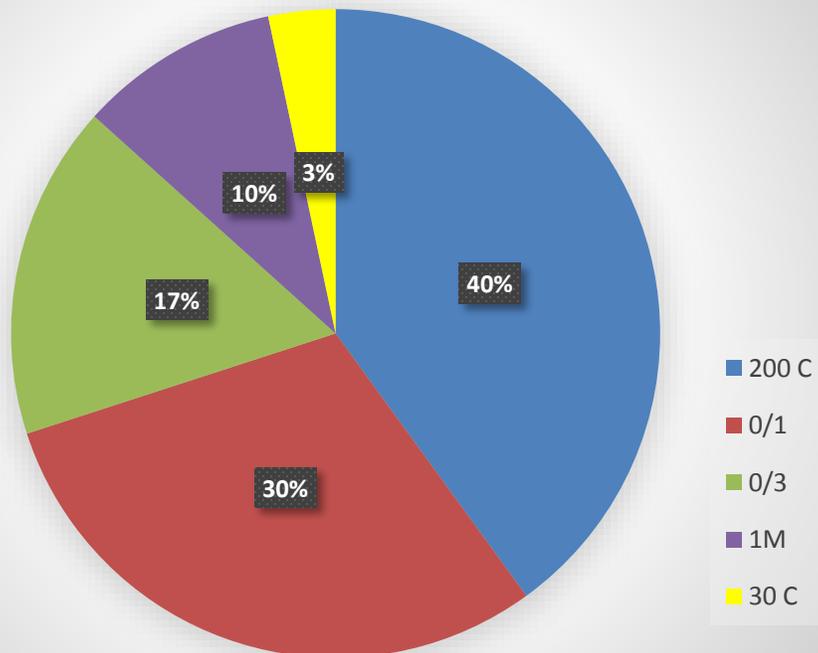


Chart No: 10

In this study, it was found that the most common potency prescribed for ADHD is 200c which accounts for 12 cases (40%). Followed by 9 cases which were prescribed with 0/1 potency (30%). 0/3 potency was given to 5 cases (17%). 1M potency in 3 cases (10%). And 30c in one case (3%).

**5.1.11. DISTRIBUTION OF CASES ACCORDING TO PRE & POST ASSESSMENT**

TABLE NO: 11

SL NO	PRE-ASSESSMENT	POST-ASSESSMENT
1	12	9
2	9	7
3	14	6
4	13	9
5	9	8
6	16	11
7	10	7
8	16	11
9	18	13
10	14	10
11	16	12
12	16	14
13	14	12
14	17	13

15	15	9
16	16	10
17	13	9
18	12	8
19	10	7
20	12	8
21	16	11
22	8	6
23	8	7
24	8	6
25	11	5
26	12	10
27	9	7
28	13	10
29	11	5
30	15	6

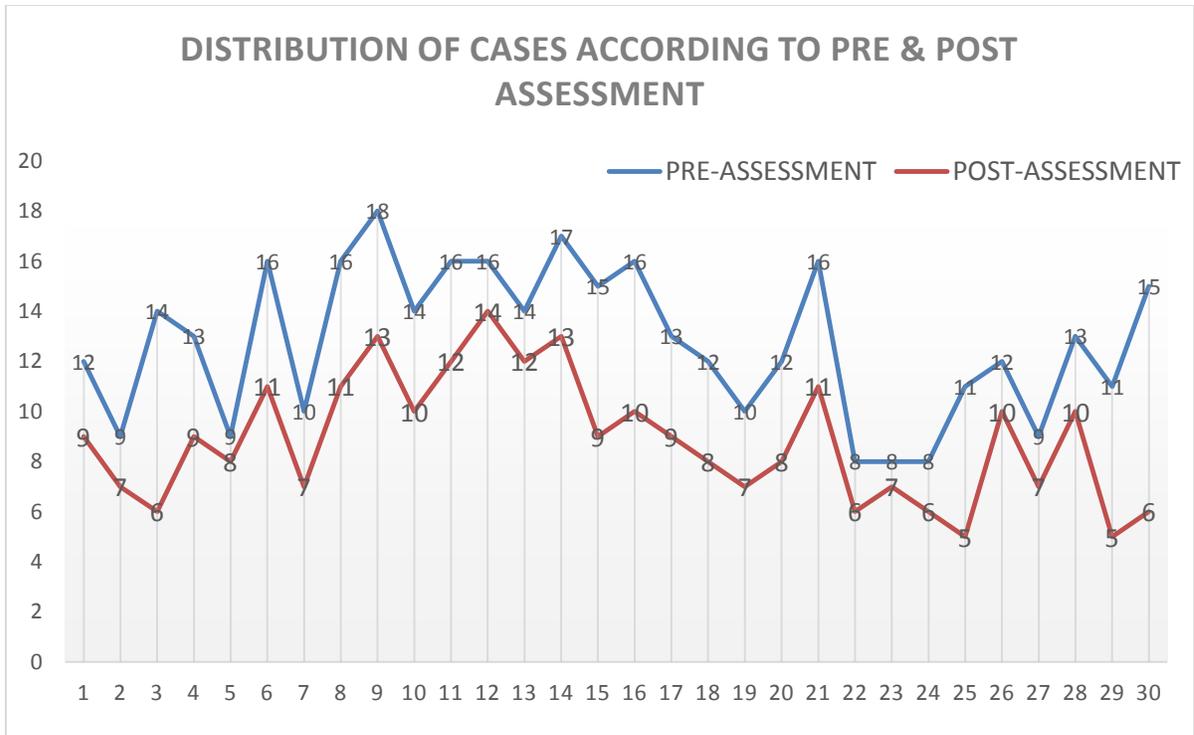


CHART NO: 11

It could be inferred from the graph that all the 30 cases included in this study showed improvement as per the difference in pre and post assessment scores which was recorded using Vanderbilt Parent Rating Scale.

### 5.1.12. DISTRIBUTION OF CASES ACCORDING TO IMPROVEMENT STATUS

TABLE NO: 12

MILD IMPROVEMENT	13
MARKED IMPROVEMENT	17

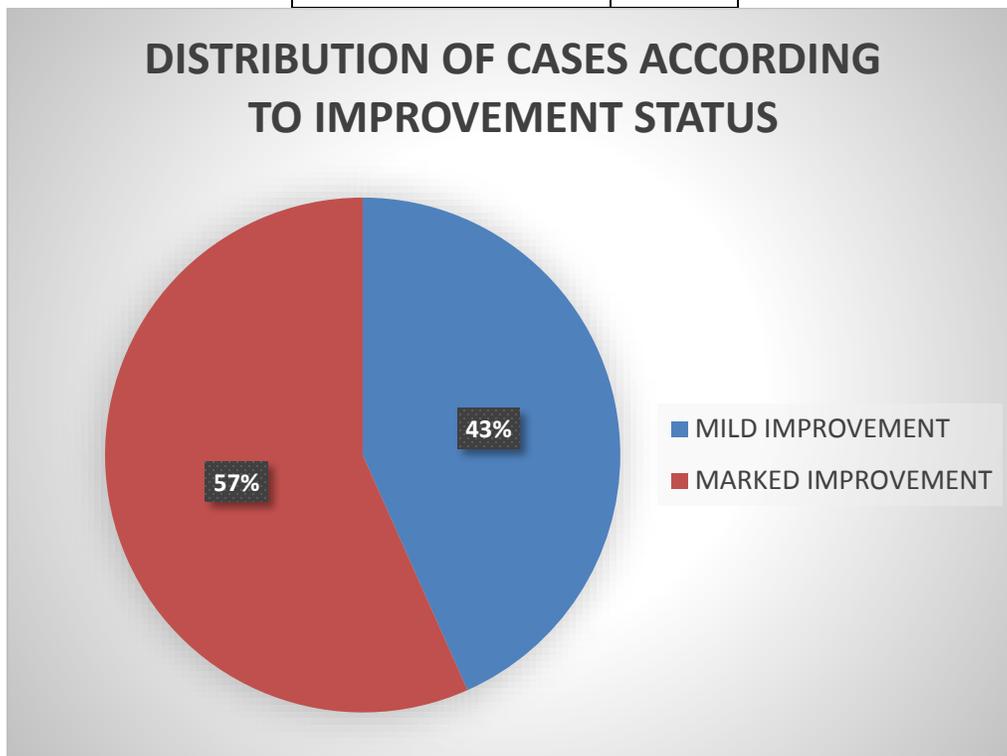


CHART NO: 12

Out of 30 cases 17 cases showed marked improvement (57%) whereas 13 cases (43%) showed mild improvement.

## 5.2. SUMMARY OF FINDINGS

A total of 30 cases were taken up at random for the study and the following conditions were obtained.

- In my study the most common age group of ADHD was found to be 6 years, in 6 cases out of 30 (20%). Followed by 11 years (17%).
- The prevalence of ADHD was found to be more in males, 19 cases (63%).
- In my study the most prevalent family history among ADHD affected children was Diabetes Mellitus which accounted for 10 cases (28%). Closely followed by Hypertension which accounted for 8 cases (22%).
- Among the type of ADHD, the Inattentive type accounted for 17 cases (57%). Rest of the 13 cases constituted for combined for Combined type (43%).
- In this study, 24 cases (80%) out of 30 had relevant ante-natal history.
- In my study the most common antenatal factor for ADHD was found to be maternal grief during pregnancy which accounted for 5 cases (20%). Whereas epilepsy and hypertension were found in 4 cases each.
- Out of 16 cases which had relevant post natal history, 9 cases (53%) were found to have delayed milestones, 2 cases each had epilepsy and low birth weight.
- In this study it was found that the medicine mostly prescribed for ADHD is Sulphur, 5 cases. Followed by Calcarea carb, Silicea and Lycopodium which constituted 4 cases each.

- In this study, it was found that the most common potency prescribed for ADHD is 200c which accounts for 12 cases (40%). Followed by 9 cases which were prescribed with 0/1 potency (30%).
- It could be inferred that all the 30 cases included in this study showed improvement as per the difference in pre and post assessment scores which was recorded using Vanderbilt Parent Rating Scale.
- Out of 30 cases 17 cases showed marked improvement (57%) whereas 13 cases (43%) showed mild improvement.
- Homoeopathic management was found to be effective as all of the cases showed improvement after the administration of homoeopathic medicines.

### 5.3. STATISTICAL ANALYSIS

SL NO	X	Y	d = X-Y	d- $\bar{d}$	(d- $\bar{d}$ ) <sup>2</sup>
1	12	9	3	0.76	0.5776
2	9	7	2	-1.76	3.0976
3	14	6	8	4.24	17.9776
4	13	9	4	0.24	0.0576
5	9	8	1	-2.76	7.6176
6	16	11	5	1.24	1.5376
7	10	7	3	-0.76	0.5776
8	16	11	5	1.24	1.5376
9	18	13	5	1.24	1.5376
10	14	10	4	0.24	0.0576
11	16	12	4	0.24	0.0576
12	16	14	2	-1.76	3.0976
13	14	12	2	-1.76	3.0976
14	17	13	4	0.24	0.0576
15	15	9	6	2.24	5.0176
16	16	10	6	2.24	5.0176
17	13	9	4	0.24	0.0576
18	12	8	4	0.24	0.0576
19	10	7	3	-0.76	0.5776
20	12	8	4	0.24	0.0576
21	16	11	5	1.24	1.5376
22	8	6	2	-1.76	3.0976
23	8	7	1	-2.76	7.6176
24	8	6	2	-1.76	3.0976
25	11	5	6	2.24	5.0176
26	12	10	2	-1.76	3.0976
27	9	7	2	-1.76	3.0976
28	13	10	3	-0.76	0.5776
29	11	5	6	2.24	5.0176
30	15	6	9	5.24	27.4576
Total			$\Sigma d = 113$		$\Sigma(d-\bar{d})^2 = 117.368$

X = score before treatment

Y = score after treatment

d = mean difference

### A. Null Hypothesis

There is no difference between the scores taken before and after Homoeopathic treatment.

### B. Alternate Hypothesis

There is difference between the scores taken before and after Homoeopathic treatment.

### C. Standard error of the mean difference

The mean of the differences  $\bar{d} = \Sigma d / n$

[where  $\Sigma d = 113$ ,  $n = 30$ ]

$$= 113/30$$

$$= 3.76$$

$$= 12.7$$

The estimate of population standard deviation is given by,

$$SD = \sqrt{\Sigma (d-\bar{d})^2 / (n-1)}, \text{ Where } \Sigma (d-\bar{d})^2 = 117.368, n = 30$$

$$= \sqrt{117.368 / (30-1)}$$

$$= 2.0117$$

$$\text{Standard error (S.E)} = S.D/\sqrt{n} = 2.0117/\sqrt{30} = 0.367$$

### D. The test statistics is paired t:

$$\text{Critical ratio} = t = \frac{\bar{d}}{S.D/\sqrt{n}}$$

$$= 3.76 / 0.367$$

$$= 10.24$$

t-Test: Paired Two Sample for Means

	<i>PRE-ASSESSMENT</i>	<i>POST-ASSESSMENT</i>
Mean	12.76666667	8.866666667
Variance	8.874712644	6.257471264
Observations	30	30
Pearson Correlation	0.759181777	
Hypothesized Mean Difference	0	
df	29	
t Stat	10.9332788	
P(T<=t) one-tail	4.19741E-12	
t Critical one-tail	1.699127027	
P(T<=t) two-tail	8.39482E-12	
t Critical two-tail	2.045229642	

The value of  $t = 10.24$

### **E. Comparison with tabled value**

Thus the critical ratio  $t$  follows a distribution with  $n-1$  degrees of freedom. The tabled  $t$  value at 5% significance level is 2.045 and 1% level is 2.756 for 29 degrees of freedom. Since the calculated value 10.9333 is greater than the tabled  $t$  value at 5% and 1% level, the null hypothesis is rejected.

## **F. Inference**

This study shows significant reduction in the disease intensity scores after the Homoeopathic treatment. Therefore, this study shows that Homoeopathic management for ADHD was effective.

## 6. DISCUSSION

The subjects of the study were selected from those patients with ADHD who were attending the Outpatient, Inpatient department and peripheral health centers of Sarada Krishna Homoeopathic Medical College as per the inclusion criteria.

A total of 30 cases were recorded in pre structured case record format. Then the cases were analyzed and the totality was erected. Then the symptoms were evaluated. For clinical assessment before and after treatment, symptom assessment scores were used. Pre-treatment score and after treatment score was calculated, finally “t” was applied to test the significance.

Based on the analysis from 30 cases of ADHD, following observations are made, comparing with the available literature.

**AGE:** In this study the maximum age prevalence of ADHD Is found to be 6years which accounts for 6 cases (20%), followed by 11 years (17%), 10 years (13%), 9 years and 13 years 10% each, followed by 7,8 and 12 years 7 % each. 5, 14 and 16 years are found to be having 3% prevalence. This can be related to the studies using the broader based DSM categories which show the highest estimates ranging from between 5% to 10% of children between the ages 5 and 12 years.

**SEX:** In this study it was found that males are having a higher prevalence where 19 cases (63%) were constituted by them whereas females were 11 in number (37%). This can be correlated to a study conducted at Vanderbilt University, boys were more affected than girls with a 4:1 ratio for the ADHD-HI and 2:1 for ADHD-AD type. This surveys

show that ADHD symptoms are seen commonly among boys. In clinic- referred samples of patients, the ratio of boys to girls with ADHD has been reported to be from 2:1 to 10:1.

**FAMILY HISTORY:** In this study the most prevalent family history among ADHD affected children was a family history of Diabetes Mellitus which accounted for 10 cases overall (28%), followed by Hypertension 8 cases (22%), Asthma 7 cases (19%), Hyperlipidaemia and Epilepsy 2 cases each (5%), 1 case each having a family history of Hypothyroidism, Tuberculosis, sinusitis, mental retardation, eczema, rheumatism and colon cancer.

**TYPE OF ADHD:** Out of the 30 cases included in the study the Inattentive Type of ADHD outnumbered the others by accounting for 17 cases which is 57%. And the rest of the 13 cases qualified for both inattentive and hyperactive which is combined type (43%). However, there were no cases qualifying solely for hyperactive type. This can be correlated with the study conducted by the Vanderbilt University where the inattentive subtype of ADHD occurred in 5%, the hyperactive-impulsive (H-I) type in 2.5%, and the combined type in 3.5%.

**ANTENATAL FACTORS:** In this study, out of 24 cases which had relevant ante-natal history, 5 cases (20%) were found to have an ante-natal history of grief suffered by mothers during pregnancy. Mothers of 4 cases each had epilepsy and hypertension. There were 2 cases each which had hyperemesis, gestational diabetes and severe abdominal pain. 1 case each had delayed labour, chicken pox, hypothyroid, vertigo, chicken-gunya and oligohydramnios.

**POSTNATAL FACTORS:** In this study, out of 16 cases which had relevant post natal factors, 9 cases (53%) were found to have delayed milestones, 2 cases each had epilepsy and low birth weight. One case each had congenital anomaly, aspiration syndrome, hypotonia and overweight. This findings can be correlated to the literature from Attention Deficit Hyperactive Disorder Tool kit by Gordon J Millichap <sup>[2]</sup> where epilepsy is found to be a strong factor for developing ADHD.

**MEDICINE:** In this study it was found that the medicine mostly prescribed for ADHD is Sulphur, 5 cases. Followed by Calcarea carb, Silicea and Lycopodium which constituted 4 cases each. Calcarea phos, Baryta carb and Phosphorus were given to 2 cases each. Remaining 7 cases each were given Nux vomica, Belladonna, Tuberculin, Staphysagria, Stramonium, Lachesis, Natrum Muriaticum.

**POTENCY:** In this study, it was found that the most common potency prescribed for ADHD is 200c which accounts for 12 cases (40%). Followed by 9 cases which were prescribed with 0/1 potency (30%). 0/3 potency was given to 5 cases (17%). 1M potency in 3 cases (10%). And 30c in one case (3%).

#### **INTENSITY SCORES OF PATIENT BEFORE AND AFTER TREATMENT:**

In my study it could be inferred that all the 30 cases included showed improvement as per the difference in pre and post assessment scores which was recorded using Vanderbilt Parent Rating Scale. 17 cases (57%) showed marked improvement.

## **6.1. LIMITATIONS**

1. Number of samples used in this study is very small. Therefore, generalisation of the result and inferences of the study need to be done cautiously.
2. Some good cases couldn't be considered in this study because of discontinued treatment in between the study period.
3. Selection of cases was difficult since many of the cases were irregular for reporting.
4. There was no control group since the sample size was small.

## **6.2. RECOMMENDATIONS**

1. Bigger sample size with extended time of research would provide better results.
2. It will be always scientific if control (placebo) group would have been kept simultaneously to verify the effectiveness of treatment.
3. There were significant number of cases with relevant ante-natal and post natal history. Hence a fine study on this topic may be interesting.
4. The prenatal factor "maternal grief" can be taken up for a research study to reveal the scope of Homoeopathic management in such cases.
5. A broad study of cases which considers the symptom totality of the mother also, during the pregnancy, in cases of such paediatric age related ailments can be taken up as a research study.

6. The most frequently indicated drug was sulphur in this study. Hence it could be taken as a research question whether administration of sulphur during pregnancy itself can prevent a potent case of ADHD, if the mother is exposed to potential risk factors.

## 7. CONCLUSION

The sample for the study consisting of thirty patients with ADHD from Inpatient, Outpatient and peripheral health centres of Sarada Krishna Homoeopathic Medical College and Hospital and following conclusion were obtained after statistical analysis. A total of 30 cases were taken up at random for the study and the following conditions were obtained. In my study the most common age group of ADHD was found to be 6 years, in 6 cases out of 30 (20%). Followed by 11 years (17%). The prevalence of ADHD was found to be more in males, 19 cases (63%). In my study the most prevalent family history among ADHD affected children was Diabetes Mellitus which accounted for 10 cases (28%). Closely followed by Hypertension which accounted for 8 cases (22%).

Among the type of ADHD, the Inattentive type accounted for 17 cases (57%). Rest of the 13 cases constituted for combined for Combined type (43%). 24 cases out of the 30 had relevant ante-natal history. In my study the most common antenatal factor for ADHD was found to be maternal grief during pregnancy which accounted for 5 cases (20%). Whereas epilepsy and hypertension were found in 4 cases each. Out of 16 cases which had relevant post natal factors, 9 cases (53%) were found to have delayed milestones, 2 cases each had epilepsy and low birth weight.

In this study it was found that the medicine mostly prescribed for ADHD is Sulphur, 5 cases. Followed by Calcarea carb, Silicea and Lycopodium which constituted 4 cases each. In this study, it was found that the most common potency prescribed for ADHD is 200c which accounts for 12 cases (40%). Followed by 9 cases which were prescribed

with 0/1 potency (30%). It could be inferred that all the 30 cases included in this study showed improvement as per the difference in pre and post assessment scores which was recorded using Vanderbilt Parent Rating Scale. 17 cases (57%) showed marked improvement.

Thus Homoeopathic management was found to be effective as all of the cases showed improvement after the administration of homoeopathic medicines.

## 8. SUMMARY

Random selection of 30 cases of patient with migraine from the OPD, IPD and Peripheral Health Centers of Sarada Krishna Homoeopathic Medical College. The case details were recorded in standardized pre structured case format of Sarada Krishna Homoeopathic Medical College Hospital. The case history was taken with holistic concept (etiological factors, mental generals, physical generals, concomitants, characteristics particulars). Diagnosis was done according to clinical presentation, Vanderbilt ADHD Diagnostic Parent Rating scale, clinical history and physical examination of patient. Then the case were analyzed and the totality were erected. Then the symptoms were evaluated. Case taking, medicine and potency selection, and follow-up was made based on the homoeopathic principles according to Organon of medicine. Repetition and change of potency and remedy were done as and when needed according to Homoeopathic principles based on Organon of medicine. Pre and Post assessment was done using Vanderbilt ADHD Diagnostic Parent Rating scale.

According to the study the most prevalent type of ADHD was found to be Inattentive type (57%).

The most common family history was Diabetes Mellitus (28%).

In my study 24 cases out of 30 had relevant ante-natal history.

The enquiry into maternal physical or mental suffering in ADHD cases revealed that 5 cases, out of the 24 cases which had relevant history, had a history of maternal grief suffered during pregnancy (20%).

Out of 30 cases, 16 cases had relevant post natal history.

Delayed milestones were found to be the most common post natal event (53% of the cases) out of the 16 cases which had relevant history.

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## APPENDIX I

### GLOSSARY

1. Aggravation (homoeopathic aggravation, symbolized by <): A situation in which the patient feels worse from or symptoms are increased by a remedy.
2. Amelioration (homoeopathic amelioration, symbolized by >): An improvement of the patient or decrease in symptoms.
3. Dose: Refers to the force of impact of the remedy. The homoeopathic dose means ‘that particular preparation of the remedy employed’, in particular the amount and or form of that preparation.
4. LM potency: The LM potencies were the last scale of potencies developed by Samuel Hahnemann (1755-1842), the founder of Homeopathy. They are also known as Q-potencies and 50 Millesimal potencies. The scale represents a serial dilution of 1:50,000 with each subsequent potency.
5. Miasm: A noxious influence, Miasm as defined by Hahnemann is the infectious principle, or virus, which, when taken into the organism, may set up a specific disease.
6. Potency: The power, Vitality or dynamic which a Homoeopathic remedy possesses, often represented as a number attached to the remedy name, either immediately before or after.
7. Symptoms: The phenomena of disease which lead to complaints on the part of the ill person.

**APPENDIX - II**

*“Case records are our valuable asset”*

**SARADA KRISHNA**

**HOMOEOPATHIC MEDICAL COLLEGE & HOSPITAL**

*KULASEKHARAM, KANNIYAKUMARI DIST, TAMIL NADU- 629161*

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**CHRONIC CASE RECORD**

O.P. No:

UNIT :

Date:

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Name:

Age: Sex: Religion: Nationality:

Name of father/Spouse/Guardian/Son/Daughter:

Marital status:

Occupation:

Family size:

Diet:

Address:

Phone No (Mobile):

**FINAL DIAGNOSIS:**

Homoeopathic	
Disease	

<b>RESULT:</b>	Cured	Relieved	Referred	Otherwise	Expired
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**2. INITIAL PRESENTATION OF ILLNESS**

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PATIENT'S NARRATION (the very expressions used by him/her)	PHYSICIAN'S INTEROGATION (details Regarding symptoms narrated)	PHYSICIAN,S OBSERVATION

**3. PRESENTING COMPLAINTS**

LOCATION	SENSATION	MODALITY	CONCOMITANTS

**4. HISTORY OF PRESENTING ILLNESS:**

**5. HISTORY OF PREVIOUS ILLNESS**

**6. HISTORY OF FAMILY ILLNESS**

## **7. PERSONAL HISTORY**

### **A. LIFE SITUATION**

Place of birth:

Socio- economic status:

Nutritional status:

Dwelling:

Religion:

Educational status :

Marital status:

Family status:

Father: ; Mother: Siblings: Male: Children:

### **B. HABITS & HOBBIES**

Food:

Addictions:

Sleep:

Artistic:

### **C. DOMESTIC RELATIONS**

With family members:

With other relatives:

With neighbours/friends/colleagues:

## **8. LIFE SPACE INVESTIGATION**

## **9. MENSTRUAL HISTORY:**

## **10. OBSTETICAL HISTORY:**

## **11. GENERAL SYMPTOMS:**

### **A. PHYSICALS**

#### **I. FUNCTIONAL**

1. Appetite :
2. Thirst :
3. Sleep :

#### **II. ELIMINATIONS**

1. Stool :
2. Urine :
3. Sweat :

#### **III . REACTIONS TO**

1. Time :
2. Thermal :
3. Season :
4. Covering :
5. Bathing :
6. Desire :

#### **IV . CONSTITUTIONAL**

### **B. MENTAL GENERAL**

## **12. PHYSICAL EXAMINATION**

#### A) GENERAL

- Conscious :
- General appearance:
- General built and nutrition:
- Anaemia:
- Jaundice:
- Clubbing:
- Cyanosis:
- Oedema :
- Lymphadenopathy:
- Pulse rate: Resp rate: B.P:
- Temp:

#### **B.SYSTEMIC EXAMINATION**

1.Respiratory system:

2.Cardiovascular system:

3.Gastro Intestinal system:

4.Urogenital system:

5. Skin and glands :

6. Musculoskeletal system

7.Central Nervous system:

8. Endocrine:

9. Eye and ENT:

10. Others:

**C.REGIONALS**

**13. LABORATORY FINDINGS**

**14. DIAGNOSIS**

- ❖ Provisional Diagnosis :
- ❖ Differential Diagnosis:
  
- ❖ Final Diagnosis (Disease):

**15 .DATA PROCESSING**

**A . ANALYSIS OF CASE**

COMMON	UNCOMMON

**B. EVALUATION OF SYMPTOMS/TOTALITY OF SYMPTOMS**

**C. MIASMATIC ANALYSIS:**

PSORA	SYCOSIS	SYPHILIS

**D. TOTALITY OF SYMPTOMS**

**E. HOMOEOPATHIC DIAGNOSIS**

**16 . SELECTION OF MEDICINE**

**A. Non Repertorial Approach**

**B. Repertorial Approach**

**17. SELECTION OF POTENCY AND DOSE**

**A. Potency**

**B. Dose**

**18. PRESCRIPTION**

**19. GENERAL MANAGEMENT INCLUDING AUXILLARY MEASURES**

**A. General/Surgical/Accessory:**

**B. Restrictions (Diet, Regimen etc.):**

Disease	Medicinal

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**20. PROGRESS & FOLLOW UP**

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Date	Symptom changes	Inference	Prescription

**APPENDIX III**  
**ASSESSMENT CHART**



**SARADA KRISHNA  
HOMOEOPATHIC MEDICAL COLLEGE**

Kulasekharam, Kanyakumari District, Tamilnadu - 629 161.

**VANDERBILT ADHD DIAGNOSTIC PARENT RATING SCALE**

Child's Name: \_\_\_\_\_ Today's Date: \_\_\_\_\_

Date of Birth: \_\_\_\_\_ Age: \_\_\_\_\_

Grade: \_\_\_\_\_

**Each rating should be considered in the context of what is appropriate for the age of your child.**

**Frequency Code:    0 = Never    1 = Occasionally    2 = Often    3 = Very Often**

1. Does not pay attention to details or makes careless mistakes, for example homework    0 1 2 3
2. Has difficulty sustaining attention to tasks or activities    0 1 2 3
3. Does not seem to listen when spoken to directly    0 1 2 3
4. Does not follow through on instructions and fails to finish schoolwork (not due to oppositional behavior or failure to understand)    0 1 2 3
5. Has difficulty organizing tasks and activities    0 1 2 3
6. Avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort    0 1 2 3
7. Loses things necessary for tasks or activities (school assignments, pencils or books)    0 1 2 3
8. Is easily distracted by extraneous stimuli    0 1 2 3
9. Is forgetful in daily activities    0 1 2 3
10. Fidgets with hands or feet or squirms in seat    0 1 2 3
11. Leaves seat when remaining seated is expected    0 1 2 3
12. Runs about or climbs excessively in situations when remaining seated is expected    0 1 2 3
13. Has difficulty playing or engaging in leisure/play activities quietly    0 1 2 3
14. Is "on the go" or often acts as if "drive by a motor"    0 1 2 3
15. Talks too much    0 1 2 3
16. Blurts out answers before questions have been completed    0 1 2 3
17. Has difficulty waiting his/her turn    0 1 2 3
18. Interrupts or intrudes on others (e.g., butts into conversations or games)    0 1 2 3
19. Argues with adults    0 1 2 3
20. Loses temper    0 1 2 3
21. Actively defies or refuses to comply with adults' requests or rules    0 1 2 3
22. Deliberately annoys people    0 1 2 3
23. Blames others for his or her mistakes or misbehaviors    0 1 2 3
24. Is touchy or easily annoyed by others    0 1 2 3

25. Is angry or resentful 0 1 2 3
26. Is spiteful and vindictive 0 1 2 3
27. Bullies, threatens, or intimidates others 0 1 2 3
28. Initiates physical fights 0 1 2 3
29. Lies to obtain goods for favors or to avoid obligations (i.e., "cons" others) 0 1 2 3
30. Is truant from school (skips school) without permission 0 1 2 3
31. Is physically cruel to people 0 1 2 3
32. Has stolen items of nontrivial value 0 1 2 3
33. Deliberately destroys others' property 0 1 2 3
34. Has used a weapon that can cause serious harm (bat, knife, brick, gun) 0 1 2 3
35. Is physically cruel to animals 0 1 2 3
36. Has deliberately set fires to cause damage 0 1 2 3
37. Has broken into someone else's home, business, or car 0 1 2 3
38. Has stayed out at night without permission 0 1 2 3
39. Has run away from home overnight 0 1 2 3
40. Has forced someone into sexual activity 0 1 2 3
41. Is fearful, anxious, or worried 0 1 2 3
42. Is afraid to try new things for fear of making mistakes 0 1 2 3
43. Feels worthless or inferior 0 1 2 3
44. Blames self for problems, feels guilty 0 1 2 3
45. Feels lonely, unwanted, or unloved: complains that "no one loves him/her" 0 1 2 3
46. Is sad, unhappy, or depressed 0 1 2 3
47. Is self-conscious or easily embarrassed 0 1 2 3

### PERFORMANCE

	Problematic	Average	Above Average
1. Overall Academic Performance	1	2	3
a. Reading	1	2	3
b. Mathematics	1	2	3
c. Written Expression	1	2	3

### PERFORMANCE

	Problematic	Average	Above Average
2. Overall Classroom Behavior	1	2	3
a. Relationship with peers	1	2	3
b. Following Directions/Rules	1	2	3
c. Disrupting Class	1	2	3
d. Assignment Completion	1	2	3
e. Organizational Skills	1	2	3

### Scoring Instructions for the ADTRS

- \***Predominately inattentive subtype** requires 6 or 9 behaviors, (scores of 2 or 3 are positive) on items 1 through 9, and a performance problem (scores of 1 or 2) in any of the items on the performance section.
- \***Predominately hyperactive/impulsive subtype** requires 6 or 9 behaviors (scores of 2 or 3 are positive) on items 10 through 18 and a problem (scores of 1 or 2) in any of the items on the performance section.
- \***The Combined Subtype** requires the above criteria on both inattention and hyperactivity/impulsivity.
- \***Oppositional-defiant disorder** is screened by 4 of 8 behaviors, (scores of 2 or 3 are positive) (19 through 26).
- \***Conduct disorder** is screened by 3 of 15 behaviors, (scores of 2 or 3 are positive) (27 through 40).
- \***Anxiety or depression** are screened by behaviors 41 through 47, scores of 3 of 7 are required, (scores of 2 or 3 are positive).

## APPENDIX IV

### CASE

Date: 2-9-2017

OP NO: 6956/17

Name of father: XXX

NAME: XXXX

Occupation: 6<sup>th</sup> standard student

AGE: 11 Years

Family size: 4 members

SEX: Male / child

Address: Kulasekharam

Religion: Hindu

#### **PRESENTING COMPLAINTS:**

LOCATION	SENSATION	MODALITIES	CONCOMITANTS(if any)
Mind	Doesn't behave according to his age Lack of concentration Improper handwriting Highly restless Wants to tap fingers always on desk Can't sit quietly at one place Can't tolerate scolding and fear Asks lot of questions and irritates Stage fear		

	Always does things in a hurried way Sympathetic to others Gets angry easily and becomes violent Doesn't obey at all Keeps rules by himself and plays accordingly		
--	--	--	--

**HISTORY OF PRESENTING ILLNESS:**

The patient's mother narrated that he is having lack of concentration. Improper handwriting, highly restless. He always wants to tap fingers always on desk. He can't sit quietly at one place, can't tolerate scolding and fear. He asks lot of questions and irritates. He has stage fear, always does things in a hurried way. But at the same time he is very much sympathetic to others. He gets angry easily and becomes violent, doesn't obey at all. He keeps rules by himself and plays accordingly.

**HISTORY OF PREVIOUS ILLNESS:**

AGE/ YEAR	ILLNESS	TREATMENT ADOPTED	OUTCOME
At 9 months of age	Febrile seizure after vaccination	Gardinol (Allopathic)	Improved
1 year 6 months	Epileptic attacks 2 times	Allopathic	Improved

**HISTORY OF FAMILY ILLNESS:**

FATHER-Colon Cancer

MOTHER-Hypercholesterolemia

## **PERSONAL HISTORY:**

### **A. LIFE SITUATION**

Place of birth: Kottukonam

Economic status: moderate

Religion: Hindu

Nutritional status: moderate

Education: 6<sup>th</sup> standard

Social status: moderate

### **B. HABITS AND HOBBIES**

Food: mixed diet, craving for

Artistic: nil

fried items

Games / sports : have rules by

Addictions: nil

himself

Sleep: good

### **C. DOMESTIC RELATIONS:**

With family members: good, but asks lot of questions

With other relatives: good

Neighbors, friends: good

### **LIFE SPACE INVESTIGATION:**

He was born and brought up in a middle class family.

From early childhood he had been so much hyperactive and annoying. There was no relevant history of any events during labor.

He had epileptic attacks at 1 years 6 months of age which was managed by allopathic medicine. Milestones all were in time.

He is having lack of concentration. Improper handwriting, highly restless. He always wants to tap fingers always on desk. He can't sit quietly at one place, can't

tolerate scolding and fear. He asks lot of questions and irritates. He has stage fear, always does things in a hurried way. But at the same time he is very much sympathetic to others. He gets angry easily and becomes violent, doesn't obey at all. He keeps rules by himself and plays accordingly.

**GENERAL SYMPTOMS:**

APPETITE: decreased

THIRST: unchanged

SLEEP: unchanged

DREAMS: not specific

STOOL: once/ day. Normal

consistency

URINE: very often passes urine

SWEAT: profuse sweat of head

**REACTIONS TO:**

Desire winter / monsoon climate

Desire open air

Aversion covering

Desire egg

Desire bathing

Thermal relationship: Hot

**MENTAL GENERALS**

Lack of concentration

Easily angered

Stage Fear

Hyperactive state.

Poor understanding

**PHYSICAL EXAMINATION:**

Conscious

Well-built and well nourished.

Height: 133 cm

Weight: 36.5 kg

ANAEMIA: NIL  
JAUNDICE: NIL  
CLUBBING: NIL

OEDEMA: NIL  
LYMPHADENOPATHY: NIL  
CYANOSIS: NIL

SKIN: normal  
Gait: steady  
Nails: Normal

Pulse: 80 beats / min  
Temp: Afebrile  
Respiratory rate: 16 breaths/ min  
Blood pressure: 110/70 mm of Hg.

**SYSTEMIC EXAMINATION:**  
NO ABNORMALITY DETECTED

**LABORATORY INVESTIGATIONS:**  
Not Done

**VANDERBILT ADHD DIAGNOSTIC PARENT RATING SCALE**

Scoring for questions 1-9 = 8  
Scoring for questions 10-18 = 4  
Total score = 12  
Type of ADHD = Inattentive Type

**DIAGNOSIS:**

**PROVISIONAL DIAGNOSIS:** Attention Deficit Hyperactive Disorder.  
(Inattentive type)

**Differential Diagnosis:** Oppositional Defiant Disorder.

**ANALYSIS OF CASE:**

COMMON SYMPTOMS	UNCOMMON SYMPTOMS
Lack of concentration Stage fear Loss of eye contact Improper hand writing Can't tolerate scolding and fear	Restless Desire cold season Easily angered Taps fingers on desk always Can't sit quietly in one place Sympathetic to others. Keeps rules by himself and plays Asks a lot of questions. Desire fried food. Desire egg Profuse sweat of scalp Wants to pass urine often. Desire winter/ monsoon climate Aversion covering Desire fanning

**EVALUATION OF SYMPTOMS:**

Restless

Easily angered

Taps fingers on desk always

Can't sit quietly in one place

Keeps rules by himself and plays

Asks a lot of questions.

Sympathetic to others.

Desire fried food.

Desire egg

Profuse sweat of scalp

Wants to pass urine often.

Desire winter/ monsoon climate

Aversion covering

Desire fanning

Desire cold season

**MIASMATIC ANALYSIS:**

	PSORA	SYCOTIC	SYPHILITIC	TUBERCULAR
FAMILY HISTORY		Hypercholesterolemia	Colon cancer	
PAST HISTORY			Febrile seizures, epilepsy	
MIND	Restless, Hyperactive, Stage fright, Lack of concentration Fear Sympathetic to others		Makes his own rules for play.	
BODY	Profuse head sweat.	Desire fried food. Desire egg	Desires winter	

**MIASMATIC DIAGNOSIS: PSORA-SYPHILITIC**

**TOTALITY OF SYMPTOMS:**

Lack of concentration

Restless

Hyperactive

Weak memory

Desire fried food.

Desire winter/ monsoon climate

Aversion covering

Desire fanning

**HOMOEOPATHIC DIAGNOSIS:**

Chronic Miasmatic Disease Psora-Syphilitic.

**SELECTION OF MEDICINE:** Repertorial approach

Lack of concentration

Restless

Hyperactive

Stage fear

Frequent urination

Weak memory

Desires winter

Desire egg

Profuse sweat of scalp

Investigation window for remedies

125% Full Synthesis

J.Sherr Luc Rajan's Miasms

	calc	bar-c	lyc	phos. sil.	sulph. tub.	calc-p	carb.	merc	puls.	caust.	arac	phac		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	1
6	6	6	6	6	6	6	6	5	5	5	5	5	5	5
13	11	11	10	10	9	9	8	7	14	11	10	9	9	8
1	2	1	1	1	-	-	-	1	-	-	-	-	1	.
2	1	1	1	-	1	2	1	1	3	-	1	1	-	.
3	3	3	3	2	2	2	2	1	3	2	3	3	3	.
4	-	-	1	-	2	1	2	1	1	2	1	-	1	2
5	3	3	3	1	1	3	1	1	1	3	3	3	1	2
6	3	1	2	3	3	1	1	2	-	3	3	2	3	1
7	2	1	-	1	1	1	1	1	2	-	2	1	-	-

Clipboard 1

- MIND - CONCENTRATION - difficult - children, in (23) 1
- MIND - RESTLESSNESS - children, in (68) 1
- MIND - MEMORY - weakness of memory (402) 1
- MIND - ANTICIPATION - stage fright (47) 1
- BLADDER - URINATION - frequent (293) 1
- HEAD - PERSPIRATION of scalp (121) 1
- GENERALS - FOOD and DRINKS - eggs - desire (58) 1

## SELECTION OF POTENCY AND DOSE

### POTENCY

According to the susceptibility of the patient medium potency is advised.

### DOSE

According to Homoeopathic principles minimum dose is advised.

### PRESCRIPTION:

Rx

- CALCAREA CARBONICA 200/ 1 DOSE
- B. PILLS 3 x BD
- B. DISC 1 x BD

x 7 Days.

**GENERAL MANAGEMENT:**

The patient's parents are asked to spend more time with their child.

**RESTRICTIONS**

Advised to avoid coffee or any other medicinal stimulants.

**PROGRESS AND FOLLOWUP**

Date	Symptom changes	Inference	Prescription
16-9-17	Tapping on desk while in class persist Lack of concentration Lack of interest in studies Makes mistake while writing Easily angered and shouts often Talks continuously, unnecessarily Generals: Wants to pass urine frequently Nocturnal enuresis	Slight improvement	Rx 1) CALCAREA CARBONICA 200- 1 DOSE (M) 2) B DISC 1xBD 3) B. PILLS 3x TDS X 7 DAYS
21-10-17	Anger persist as same Restlessness persist Lack of interest in studies Slowness in learning Nocturnal enuresis better Making mistakes while writing persist but better than before.		Rx 1) SAC LAC - 1 DOSE (M) 2) B DISC 1xBD 3) B. PILLS 3x TDS X 7 DAYS

2-12-17	<p>Violent anger persist  Beats on his head  Restlessness and over activity persist  Stubbornness persist  Lack of interest in study persist  Nocturnal enuresis relieved</p>		<p>Rx  1) SAC LAC- 1  DOSE (M)  2) B DISC 1xBD  3) B. PILLS 3x TDS  X 7 DAYS</p>
13-1-18	<p>Playful, obstinate persist  Anger persist  Lack of interest in studies persist  Stubbornness in one same thing.  Generals : good</p>		<p>Rx  1) CALCAREA  CARBONICA  200- 1 DOSE (M)  2) B DISC 1xBD  3) B. PILLS 3x TDS  X 7 DAYS</p>
11-3-18	<p>Anger persist as same  Restlessness persist  Lack of interest in studies  Slowness in learning  Nocturnal enuresis better  Making mistakes while writing persist but better than before.</p>		<p>Rx  1) SAC LAC- 1  DOSE (M)  2) B DISC 1xBD  3) B. PILLS 3x TDS  X 7 DAYS</p>
14-4-18	<p>Anger symptoms better than before.  Restlessness better.  Lack of interest in studies</p>		

	<p>Slowness in learning  Nocturnal enuresis better  Making mistakes while writing  persist but better than before</p>		<p>Rx  1) SAC LAC- 1  DOSE (M)  2) B DISC 1xBD  3) B. PILLS 3x TDS  X 7 DAYS</p>
12-5-18	<p>Anger symptoms better than  before.  Restlessness better.  Lack of interest in studies  Slowness in learning  Nocturnal enuresis better</p>		<p>Rx  1) SAC LAC- 1  DOSE (M)  2) B DISC 1xBD  3) B. PILLS 3x TDS  X 7 DAYS</p>
11-9-18	<p>Anger symptoms better.  Restlessness better  Patient feeling generally better  Generals : good</p>		<p>Rx  1) CALCAREA  CARBONICA  200- 1 DOSE (M)  2) B DISC 1xBD  3) B. PILLS 3x TDS  X 7 DAYS</p>
18-10-18	<p>Learning shows improvement  Good memory  Easily angered  Less violent  Concentration lack of persist  Generals: good</p>		<p>Rx  1) SAC LAC- 1  DOSE (M)  2) B DISC 1xBD  3) B. PILLS 3x TDS  X 7 DAYS</p>

<p>17-11-18</p>	<p>Anger symptoms better.</p> <p>Behavior better</p> <p>Aversion to study persist</p> <p>Lack of concentration persist but better than before.</p> <p>VANDERBILT ADHD DIAGNOSTIC PARENT RATING SCALE</p> <p>Scoring for questions 1-9 = 6</p> <p>Scoring for questions 10-18 = 3</p> <p>CURRENT Total score = 9</p> <p>PREVIOUS TOTAL SCORE: 12</p> <p>Change in score 3 marks</p>	<p>Score for inattentive type reduced</p> <p>Good prognosis</p>	<p>Rx</p> <p>1) SAC LAC- 1 DOSE (M)</p> <p>2) B DISC 1xBD</p> <p>3) B. PILLS 3x TDS X 7 DAYS</p>
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**APPENDIX V**  
**MASTER CHART**

S L N O:	OP NO:	AGE/ SEX	FAMILY HISTORY	PREDISPOSING FACTOR		ADHD TYPE	MEDICIN E	SCORING		IMPROVEMENT STATUS
				ANTEN ATAL	POST NATAL			PRE- ASSE SSME NT	POST - ASSE SSM ENT	
1	6956 /17	11yrs/ M	Fr-Colon Cancer Mr- Hypercholestr olemia	-	Epilepsy	Inattentiv e	CALCARE A CARB 200	12	9	MILD IMPROVEMENT
2	6062 /16	11yrs/ M	Mr- Diabetic, Hypertension	-	Low Birth Weight	Inattentiv e	SILICEA 0/1	9	7	MILD IMPROVEMENT
3	7799 /16	13yrs/ M	Fr-Diabetic, hypertension hyperlipidaem ia	Maternal grief during pregnanc y	-	Inattentiv e	SULPHUR 0/1	14	6	MARKED IMPROVEMENT
4	9353 /16	10yrs/ M	Mr- Hypothyroid	-	-	COMBI NED	LYCOPOD IUM 0/1	13	9	MARKED IMPROVEMENT
5	7843 /16	9yrs/ M	Fr- Tuberculosis	Maternal grief during pregnanc y	-	Inattentiv e	BELLADO NA 1M	9	8	MILD IMPROVEMENT

6	8261/16	8yrs/M	Mr- Epilepsy	Epilepsy- no medication till 3 months	1yr- Epilepsy	COMBINED	LYCOPODIUM 0/3	16	11	MARKED IMPROVEMENT
7	3239/17	10yrs/M	–	Epilepsy	Delayed milestones	Inattentive	BARYTACARB 0/3	10	7	MILD IMPROVEMENT
8	8590/17	7yrs/M	Fr- Sinusitis Mr- Hypertension	Hypertension during Pregnancy	congenital anomaly of left leg and ear	COMBINED	PHOSPHOROUS 0/3	16	11	MARKED IMPROVEMENT
9	844/17	7yrs/F	–	Delayed Labour	Milestones delayed	COMBINED	TUBERCULINUM 1M	18	13	MARKED IMPROVEMENT
10	8449/16	13yrs/F	Mr- Hypertension	Hypertension during Pregnancy	Aspirated milk at 28 days	Inattentive	STAPHYSAGRIA 1M	14	10	MARKED IMPROVEMENT
11	8389/17	10yrs/M	Fr- Asthma	Chicken pox during pregnancy, Hypertension	–	COMBINED	STRAMONIUM 200	16	12	MARKED IMPROVEMENT
12	7805/16	11yrs/M	Maternal Uncle - MR		Epilepsy before 1yr of age	COMBINED	NUXVOMICA 0/1	16	14	MILD IMPROVEMENT

13	7153 /17	9yrs/F	M. Grand Mother- asthma	Maternal grief during pregnanc y	–	COMBI NED	SULPHUR 0/1	14	12	MILD IMPROVEMENT
14	7250 /14	6yrs/F	Fr- Epilepsy	Hypothyroid during pregnanc y	Poor tone at birth	COMBI NED	CALCARE A CARB 200	17	13	MARKED IMPROVEMENT
15	7140 /18	6yrs/F	Mr- Eczema	–	Mileston es delayed	COMBI NED	SILICEA 30	15	9	MARKED IMPROVEMENT
16	6545 /18	10yrs/ M	GMr - Diabetic	Depressi on	Mileston es delayed	COMBI NED	SILICEA 200	16	10	MARKED IMPROVEMENT
17	5970 /18	12yrs/ M		Depressi on		Inattentiv e	LACHESI S 200	13	9	MARKED IMPROVEMENT
18	9403 /16	6yrs/F	Mr- Asthma	Hyperem esis		Inattentiv e	SILICEA 0/1	12	8	MARKED IMPROVEMENT
19	7764 /18	9yrs/F	–	–	Mileston es delayed, Low Birth Weight	Inattentiv e	CALCARE A CARB 200	10	7	MILD IMPROVEMENT
20	6478 /17	6yrs/ M	Fr- Diabetic, Hypertension	Depressi on		Inattentiv e	LYCOPOD IUM 200	12	8	MARKED IMPROVEMENT
21	2588 /17	11yrs/ M	–	Vertigo, Severe Abdomin al Pain	–	COMBI NED	PHOSPHO ROUS 0/3	16	11	MARKED IMPROVEMENT

22	6227/17	16yrs/F	GMr - Asthma Fr- Hypertension	Hypertension during Pregnancy	-	Inattentive	SULPHUR 0/1	8	6	MILD IMPROVEMENT
23	716/17	6yrs/F	Fr- Hypertension	Severe abdominal Pain	-	Inattentive	CALCARE A PHOS 200	8	7	MILD IMPROVEMENT
24	9404/16	6yrs/M	GFr- Diabetic, Fr- Asthma	Diabetes Mellitus	Milestones delayed, overweight	Inattentive	CALCARE A PHOS 200	8	6	MILD IMPROVEMENT
25	7059/17	14yrs/F	GMr- Diabetic	Epilepsy	Milestones delayed	Inattentive	NATRUM MUR 200	11	5	MARKED IMPROVEMENT
26	4500/17	11yrs/M	Fr- Diabetic, Hypertension	chikungunya during pregnancy	-	Inattentive	CALCARE A CARB 200	12	10	MILD IMPROVEMENT
27	4504/17	13yrs/M	GMr- Diabetic	Epilepsy, Oligohydramnios	Milestones delayed	Inattentive	BARYTA CARB 0/3	9	7	MILD IMPROVEMENT
28	3928/17	8yrs/M	Fr- Asthma	Diabetes Mellitus	-	COMBINED	SULPHUR 0/1	13	10	MILD IMPROVEMENT
29	1087/18	12yrs/M	Fr-Diabetes Mr- Rheumatism	-	Milestones delayed	Inattentive	SULPHUR 0/1	11	5	MARKED IMPROVEMENT

30	7478 /17	5yrs/F	GMr- Diabetic hypertension asthma	Hyperem esis	-	COMBI NED	LYCOPOD IUM 200	15	6	MARKED IMPROVEMENT
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## **APPENDIX VI**

### **FORM - 4 : CONSENT FORM (A)**

#### **INFORMATION FOR PARTICIPANTS OF THE STUDY**

The title of my study is “A clinical study on the Homoeopathic management of Attention Deficit Hyperactivity Disorder”. The purpose of my study is (1) To assess the change brought about by Homoeopathic intervention in ADHD cases, (2) To know about the most common type of ADHD prevalent in Kanyakumari district, (3) To know about common predisposing factors causing ADHD, (4) To elicit the relation between the antenatal stress physical/mental suffered by the mother and the ADHD related symptoms presented by her child. The expected duration of subject’s participation is from July 2017 to January 2019.

The procedures include Patient presenting with ADHD symptoms in any of the OPD and Peripheral Health Centers of Sarada Krishna Homoeopathic Medical College & Hospital will be subjected to detailed case taking after obtaining consent from their parents. Detailed case taking and recording of cases in standardized pre structured case record format. Clinical examination with investigations where-ever necessary. Erecting a totality of the case. Prescription will be based on the totality, with the aid of a suitable repertory (as per the case ) after referring standard textbooks of Materia Medica. Potency selection and repetition will be done according to the principles laid down in the Organon of Medicine 5th and 6th edition. Tabular representation of the observations. Pre-test and post-test assessment followed by statistical assessment will be done on monthly basis until symptom relief or for a period of 3-6months or till follow

The benefits to the subjects or others, reasonably expected from research are (1)The participants are investigated to find out whether he/ she is having ADHD, (2) If a participant is identified to have ADHD or is a known patient with ADHD in both cases he/ she will be given an awareness about the risk factors of ADHD, (3)

Thus study is a benefit not only to the participant but also to the society as a whole.

The records are maintained highly confidential. Only the investigator has the access to the subject's medical records. Participants' identity will never be disclosed at any time, during or after the study period or during publication of the research. Securely store data documents in locked locations and encrypted identifiable computerized data. All information revealed by the patient will be kept as strictly confidential. Free treatment for research related injury is guaranteed. Compensation of the participants not only for disability or death resulting from such injury but also for unforeseeable risk is provided, in case situation arises.

Contact for trial related queries, rights of the subject and in the event of any injury:

**Investigator:** Dr. Abhijith Ranjan S. (P.G. Scholar)

Department of Paediatrics,  
Sarada Krishna Homoeopathic Medical college and  
hospital, Kulasekharam, Mobile no: 9809012398

**Guide:** Dr.P.R.Sisir

Professor & Head  
Department of Paediatrics,  
Sarada Krishna Homoeopathic Medical College,  
Kulasekharam, mobile no:9443474941

There will not be any anticipated prorated payment to the subject for participating in the trial. The responsibilities to the participant in the trial are; they must disclose all about their complaints, participants must strictly stick on to the scheduled diet and regimen.

The participation is voluntary, that the subject can withdraw from the study at any time and that refusal to participate will not involve any penalty or loss of benefits to which the subject is otherwise entitled.

**Signature of investigator:**

**FORM - 4 : CONSENT FORM (B)**

**Participant consent form**

**Informed Consent form to participate in a clinical trial**

**Study Title:** "A CLINICAL STUDY ON THE HOMOEOPATHIC MANAGEMENT OF ATTENTION DEFICIT HYPERACTIVITY DISORDER"

**Study Number:**

**Subject's Initials:**

**Subject's Name:**

**Date of birth/Age:**

Please initial  
Box (Subject)

- i.** I confirm that I have read and understood the information sheet dated \_\_\_\_\_ for the above study and have had the opportunity to ask question.
- ii.** I understood that my participation in the study is voluntary and that I am free to withdraw at any time' without giving any reason. Without my medical care or legal rights being affected.
- iii.** I understand that the sponsor of the clinical trial,others working on the sponsor's behalf the Ethics Committee and the regulatory authorities will not need my permission to look at my health records both in respect of the current study and any further research that may be conducted in relation to it, even if I withdraw from the trial. I agree to this access. However, I understand that my identity will not be revealed in any information released to third parties or published.
- iv.** I agree not to restrict the use of any data or result that arise from this study Provided such a use only for scientific purpose(s)
- v.** I agree to take part in the above study.

Signature (or Thumb impression of the subject/legally acceptable

Representative: \_\_\_\_\_

Date \_\_\_\_/\_\_\_\_/\_\_\_\_

Signatory's Name: \_\_\_\_\_

Signature of the Investigator: \_\_\_\_\_

Study Investigator's Name: Dr Abhijith Ranjan.S

Signature of the Witness \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Signature of the Witness \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_