

Journal of **Ayurveda and Integrated Medical Sciences**

www.jaims.in



An International Journal for Researches in Ayurveda and Allied Sciences



not o

Journal of

Ayurveda and Integrated Medical Sciences

ORIGINAL ARTICLE

December 2024

A clinical study to evaluate the efficacy of *Madhuyashti* granules and *Shirodhara* in the management of Attention Deficit Hyperactivity Disorder (ADHD) in school going children

Zenia Dharani¹, Minakshi²

¹Post Graduate Scholar, Department of Kaumarbhritya, Rajiv Gandhi Government Post Graduate Ayurvedic College and Hospital, Paprola, Himachal Pradesh, India.

²Professor, P.G. Department of Kaumarbhritya, Rajiv Gandhi Government Post Graduate Ayurvedic College and Hospital, Paprola, Himachal Pradesh, India.

ABSTRACT

Attention Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder characterized by inattention, hyperactivity and impulsivity. The growing prevalence of ADHD among school-going children necessitates exploring holistic and integrative treatment approaches. Ayurveda, with its personalized therapeutic interventions, offers a promising avenue for managing ADHD. This clinical study is aimed to evaluate the efficacy of Madhuyashti granules (Glycyrrhiza glabra) and Shirodhara (a classical Ayurvedic therapy) in managing ADHD symptoms in school-going children. A randomized, controlled clinical trial was conducted involving school-going children aged 6-15 years diagnosed with ADHD based on DSM V criteria. Participants were divided into two groups: Group A received Madhuyashti Granules (internally administered) only, while Group B received Madhuyashti Granules (internally administered) alongside Shirodhara therapy. The intervention was administered for 45 days. The primary outcomes were measured using qualitative parent-teacher feedback. Group B exhibited significant improvement in attention span, impulse control and hyperactivity compared to Group A. Madhuyashti Granules, known for their Medhya (nootropic) properties, enhanced cognitive functions, while Shirodhara provided calming effects, reducing hyperactivity and promoting focus. The integrative approach showed no adverse effects, demonstrating safety and efficacy. The combination of Madhuyashti Granules and Shirodhara proved effective in managing ADHD symptoms, offering a natural and holistic alternative for school-going children. Further large-scale studies are recommended to validate these findings and explore long-term benefits.

Key words: ADHD, Madhuyashti Granules, Shirodhara, Ayurveda, school-going children, neurodevelopmental disorders.

INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD) is a psychiatric condition that has long been recognized for its impact on children's ability to function. Individuals with ADHD display developmentally inappropriate levels

Address for correspondence:

Dr. Zenia Dharani

Post Graduate Scholar, Department of Kaumarbhritya, Rajiv Gandhi Government Post Graduate Ayurvedic College and Hospital, Paprola, Himachal Pradesh, India.

E-mail: zeniadharani7@gmail.com

Submission Date: 09/11/2024 Accepted Date: 21/12/2024

Quick Response Code

Website: www.jaims.in

DOI: 10.21760/jaims.9.12.2

of inattentiveness, hyperactivity or impulsivity. It is not a newly recognized condition; but has been known by different names throughout history. In the 1930s, it was referred to as "minimal brain dysfunction", and over time, the terminology evolved to ADD and later ADHD^[1]. Previously, there were separate diagnoses for Attention Deficit Disorder (ADD) and Attention Deficit Hyperactivity Disorder (ADHD), but the DSM IV combined these into one disorder with three subtypes: predominantly inattentive, predominantly hyperactive and combined type. The prevalence of ADHD has increased, particularly since the 1950s, as schooling became more standardized.

The etiology of ADHD involves a combination of genetic and environmental factors. It is among the most heritable psychiatric disorders. Research indicates that different subtypes have varying prevalence rates within the population. The inattentive subtype is found

ORIGINAL ARTICLE

December 2024

in approximately 18.3% of cases, while the hyperactive/impulsive and combined subtypes represent 8.3% and 70% of cases, respectively. Notably, the inattentive subtype is more commonly observed in females. Overall, ADHD has a male-to-female ratio of approximately 2-3:1 according to various studies^[2]. It is also estimated to affect around 3-6% of the adult population^[3]. It is one of the most prevalent disorders diagnosed during childhood.

The exact correlation of ADHD is not explicitly found in Ayurvedic classics; however, symptoms of abnormal behaviour are scattered throughout these texts. While discussing Nanatmaja Vyadhis (diseases caused by imbalances of specific Doshas), various behavioural abnormalities are mentioned. Descriptions of aberrant behaviours such as Anavasthita Chittatwam (instability of mind), Mano Vibhrama (perversion of mind), Buddhi Vibhrama (perversion of intellect), Smriti Vibhrama (perversion of memory), Sheela Vibhrama (perversion of manner) and Cheshta Vibhrama (perversion of behaviour) are dispersed throughout the Ayurvedic classics. These neurobehavioural symptoms are collectively described under *Unmada Vyadhi*, and they closely resemble the clinical and associated features of ADHD. Hence, it can be considered as Bala Unmada and can be treated accordingly.

ADHD symptoms typically begin at a young age and include difficulties such as lack of attention, poor concentration, disorganization, trouble completing tasks, forgetfulness and frequently losing things. To be diagnosed as ADHD, these symptoms must be present before the age of 7, last for at least six months and significantly interfere with daily life activities. Moreover, these symptoms must be observable in more than one setting (e.g., at home and school, or at school and during after-school activities). It can have significant consequences, including impaired social interactions, increased risky behaviours and academic challenges^[4].

ADHD must be understood in the context of what is developmentally and culturally appropriate for an individual. The disorder is primarily considered a dysfunction of executive functioning, predominantly involving the frontal lobe. Consequently, individuals often struggle not only with attention and focus but also with decision-making and emotional regulation. Children with ADHD may face challenges in social interactions, become easily frustrated and act impulsively, leading to them being unfairly labelled as "troublemakers".

Early diagnosis and treatment of ADHD are crucial to prevent the persistence of symptoms into adulthood, which can lead to comorbid conditions. Treatment primarily involves stimulant medications and psychotherapy, which help manage symptoms and improve overall quality of life^[5].

Recently, an increase in ADHD cases among younger children has been observed, attributed to factors such as heightened awareness, improved diagnostic practices and lifestyle changes. Increased exposure to digital media and reduced physical activity are particularly believed to exacerbate symptoms such as hyperactivity, impulsivity and inattention. Recognizing ADHD's global impact, the World Health Organization (WHO) identifies it as a significant global health concern, emphasizing the need for ongoing research, timely diagnosis and effective treatment.

While modern medicine offers established treatments for ADHD, concerns about side effects, especially with long-term use, have led to increased interest in safer alternatives like Ayurvedic medicine. Madhuyashti is one of the four best Medhya Rasayana herbs mentioned in classical texts for enhancing cognitive function and mental clarity. Additionally, Shirodhara, a non-invasive therapy involving the gentle pouring of warm liquids over the forehead, is known for its calming effects and helps alleviate stress and anxiety. Together, Madhuyashti and Shirodhara provide a safe, natural approach to managing ADHD, addressing its symptoms while enhancing overall mental well-being. In light of this, the present study entitled "A clinical study to evaluate the efficacy of Madhuyashti Granules and Shirodhara in the management of Attention Deficit Hyperactivity Disorder (ADHD) in school going children", has been undertaken with the following aims and objectives:

ORIGINAL ARTICLE

December 2024

AIM AND OBJECTIVES

- 1. To study the efficacy of *Madhuyashti* Granules and *Shirodhara* in the management of ADHD.
- 2. To evaluate the clinical safety of *Madhuyashti* Granules and *Shirodhara* in children.

MATERIALS AND METHODS

Selection of patients

Patients of ADHD fulfilling the diagnostic criteria were randomly selected from OPD of *Kaumarbhritya* and IPD of R.G.G.P.G. Ayurvedic College and Hospital, Paprola, Distt. Kangra (H.P.) irrespective of gender, religion, socio-economic status etc.

Grouping of patients

Enrolled total of 40 study subjects were randomly divided into following two groups:

Group I: 20 Patients in this group were managed with *Madhuyashti* Granules.

Group II: 20 Patients in this group were managed with *Madhuyashti* Granules and *Shirodhara*.

1. Madhuyashti Granules

Route of administration - Oral

Anupana - Milk

Dosage - 80 mg/kg/bid

2. Shirodhara - Ksheera

Shirodhara:

Shirodhara is a method of pouring any Drava Dravya like cow's milk or oil over forehead of patients in the form of a regular stream from a specific height of about 3.14 inches as mentioned in Ayurveda classics in fixed oscillatory movement for 45 minutes per day for at least two weeks.

Duration of the trial: 45 Days

Follow up: At 15th day, 30th day and at the time of completion of study.

Diagnostic Criteria

ADHD affected children were screened by preassessment criteria based on DSM V (Diagnostic & Statistical Manual for Mental Disorders).

Inclusion Criteria

- Individual between age group of 6 to 15 years of both genders having fulfilled DSM V criteria.
- Parents of patient willing to participate in the trial.

Exclusion Criteria

- Individuals below 6 years and above 15 years of age.
- Mental disorders like conduct disorder, anxiety, depressive disorders, obsessive disorders and compulsive disorder.
- Children with schizophrenia.
- Children having medical illness like hearing loss, hypothyroidism, genetic disorder and seizures.
- Children having congenital deformity or muscular dystrophy.

Withdrawal Criteria

- If a child develops any serious condition during the course of clinical trial which requires urgent treatment.
- If a child's parent wants to withdraw his/her child from the clinical trial.

Assessment Criteria

1. Objective Criteria

Biochemical Investigations

- CBC (Hbgm%, TLC, DLC)
- LFT (SGOT, SGPT)
- RFT (B. Urea, S. Creatinine)
- Urine (Routine, Microscopic)

2. Subjective Criteria

To assess the improvement in clinical symptomatology of the patients, a scoring system was adopted based on the DSM V criteria. The scoring ranges from asymptomatic to severe, as detailed below:

Asymptomatic - 0

Mild - 1

Moderate - 2

ORIGINAL ARTICLE

December 2024

Severe - 3

Severe	- 3				
SN	DSM V Items	0	1	2	3
1. In	attention				
a.	Fails to give close attention to details or makes careless mistakes in school works or other activities.				
b.	Difficulty sustaining attention in tasks or play activities.				
C.	Does not seem to listen to what is being said to him/her.				
d.	Does not follow through, on instructions and fails to finish school work, chores or duties at the work place.				
e.	Difficulty in organizing tasks and activities.				
f.	Avoids, expresses reluctance about or has difficulties in tasks that require sustained mental effort.				
g.	Uses the things for unnecessary tasks or activities.				
2. H	yperactivity			•	•
a.	Fidgets with hands to feet or squirms in his/her seat.				
b.	Leaves seats in classroom or in other situations in which remaining seated is expected.				
c.	Runs about or climbs excessively in situations where it is inappropriate.				
d.	Has difficulty playing or engaging in leisure activities quietly.				
e.	Is always 'on the go' or acts as if 'driven by a motor'.				
f.	Talks excessively.				
3. In	npulsivity				
g.	Blurts out answers to questions before the questions have been completed.				

h.	Has difficulty waiting in lines or in games or group situations.		
i.	Interrupts or intrudes on others.		

Statistical Analysis

Data was statistically analyzed by using appropriate tests. The "Student's Paired 't' test" was used for individual group and "Unpaired 't' test" was used for intergroup comparison of parametric data. For non-parametric data, the "Wilcoxon Signed Rank Test" was used for individual group and the "Mann Whitney 'U' test" was used for intergroup comparison.

The obtained results were interpreted as follows:

Interpretation	p Value
Insignificant	p ≥ 0.05
Significant	0.001 ≤ p < 0.05
Highly significant	p < 0.001

Overall Assessment Criteria

The overall results were categorized in terms of percentage relief as follows:

Complete Remission	100% relief
Marked Improvement	>75% relief
Moderate Improvement	51% to 75% relief
Mild Improvement	25% to 50% relief
No Improvement	< 25% or No relief

RESULTS

Effect of Therapy on Subjective Criteria

Criteria	Grou ps	Mean Score		Dif f	% chan	±S.D	w	Р	Resu Its	
		вт	AT		ge					
1. Inattention										
1a.	Grou p I	1. 95	0. 8	1.1 5	58.9	0.81 3	-120	<0.0 01	HS	
	Grou p II	2. 1	1	1.1	52.3	0.71 8	-136	<0.0 01	HS	

ORIGINAL ARTICLE

December 2024

1b.		Gro p I	u	2. 05	1. 05	1		48	3.7	0. 8	85	-1	05	<(0:).0 L	HS	5
		Gro p II	u	2. 6	1. 2	1	.4	53	8.8	0. 5	0.99 5		.36 <0).0 L	HS	5
1c.		Gro p I	u	2. 6	1. 15	1	.4	53	8.8	0.60		-1	90		<0.0 H		5
		Gro p II	u	2. 3	0. 75	1 5	.5	67	'.3	0. 9	75	-1	71	<0).0 L	HS	5
1d.		Gro p I	u	1. 8	0. 95	0.5	.8	47	'.2	0. 3	81	-7	8	<0).0 L	Н	S
		Gro p II	u	1. 8	0. 95	0	.8	47	'.2	0. 3	81	-7	8	<0).0 L	HS	S
1e.		Gro p I	u	1. 55	0. 8	0	.7	45	.1	0. 6	71	-7	8	<0).0 L	HS	S
		Gro p II	u	2. 25	1. 3	0	.9	42	2	0. 9	75	-1	05	<0).0 L	Н	5
1f.		Gro p I	u	1. 75	0. 65	1	.1	62	.8	0. 8	96	-7	8	<0).0 L	Н	S
		Gro p II	u	1. 95	0. 75	1	.2	61	5	0. 4	89	-1	20	<0).0 L	HS	5
1g.		Gro p I	u	0. 9	0. 6	0	.3	3 33.3		0. 0	.47 -2		1	0.03 1		S	
		Gro p II	u	1. 6	0. 8	0	.8	50)	0. 8	.76 -78		8	<0.0 01		Н	S
2. Hy	/pe	ractiv	/ity														
2a.	Gı p	rou I	2.	15	1.6	5	0.	55	25.	5	0.5	51	-66	5	<0.0	0	H S
	Gı p	rou II	1.	8	0.9)	0.8	85	47.	2	0.8	31	-78	3	<0.0	0	H S
2b.	Gı p	rou I	1.	25	0.6	5	0.0	65	52		0.6	57	-66	5	<0.0	0	H S
	Gı p	rou II	1.	45	0.5	5	0.9	95	65.	5	0.9	9	-66	5	<0.0	0	H S
2c.	Gı p	rou I	1.	65	0.9)	0.8	85	42.	4	0.5	57	-91	L	<0.0	0	H S
	Gı p	rou II	2.	1	0.8	3	1.3		61.	9	0.9 9)7	-10)5	<0.0	0	H S
2d.	Gı p	rou I	2		1.0)	0.9	95	47.	5	0.8 6	32	-91	L	<0.0	0	H S
	Gı p	rou II	2.	75	1.3	3	1.4	45	52.	7	0.6 6	8	-17	71	<0.0	0	H S
2e.	Gı p	rou I	1.	7	0.9)	0.8	85	50		0.8 4	33	-66	5	<0.0	0	H S

									_
	Grou p II	2.2	1.0 5	1.15	52.2	0.19 6	-105	<0.0 01	H S
2f.	Grou p I	1.85	1.4 5	0.4	21.6	0.59 8	-28	<0.0 16	S
	Grou p II	1.35	0.7 5	0.6	44.4	0.68 1	-55	<0.0 02	S
3. In	pulsivity	У							
3g.	Grou p I	0.75	0.4 5	0.3	40	0.57 1	-15	0.06 3	IS
	Grou p II	0.9	0.4 5	0.45	50	0.68 6	-28	0.01 6	S
3h.	Grou p I	1.85	1.0 5	0.8	43.2	0.69 6	-91	<0.0 01	H S
	Grou p II	2.45	1.1 5	1.3	53	0.73 3	-153	<0.0 01	H S
3i.	Grou p I	0.85	0.4 5	0.4	47	0.50 3	-36	0.00 8	S
	Grou p II	1	0.2 5	0.75	75	1.02 0	-45	0.00 4	S

Intergroup Comparison of Subjective Parameters:

Criteria	% Relief		p value	Significance				
	Group I (n=20)	Group II (n=20)						
1. Inattention								
1a.	58.9	52.3	0.818	IS				
1b.	48.7	53.8	0.218	IS				
1c.	53.8	67.3	0.464	IS				
1d.	47.2 47.2		0.989	IS				
1e.	45.1	42.2	0.329	IS				
1f.	62.8	61.5	0.839	IS				
1g.	33.3	50	0.052	IS				
2. Hyperactiv	vity							
2a.	25.5	47.2	0.316	IS				
2b.	52	65.5	0.448	IS				
2c.	51.5	61.9	0.136	IS				

47.5 52.7 0.069 IS 50 IS 2e. 52.2 0.316 2f. 21.6 44.4 0.393 IS 3. Impulsivity 40 50 0.568 IS 3g. 43.2 53 3h. 0.049 3i. 47 75 0.489 IS

Effect of Therapy on Objective Parameters:

Group I

Investiga tions	Gro ups	Mean	Score	d	% of cha	±S. D.	p val	Res ult
		ВТ	AT		nge		ue	
Haemogl obin	Gro up I	14.4 25	14.3 95	0.0 3	0.10 4	0.61 9	0.9 15	IS
	Gro up II	13.1 25	13.1 15	0.0 1	0.11 4	0.93 1	0.9 43	IS
TLC	Gro up I	7.71 0	7.01 0	0.7 00	9.07 9	1.73 8	0.0 87	IS
	Gro up II	7.04 5	6.80 7	0.2 38	3.37 8	2.97 8	0.7 25	IS
SGOT	Gro up I	27.1 5	26.9 5	0.2	0.73 9	4.67 5	0.8 50	IS
	Gro up II	30.6 5	30.0 0	0.6 5	2.12 0	12.8 61	0.8 24	IS
SGPT	Gro up I	23.0 5	22.8 0	0.2 5	1.08	4.03 8	0.7 85	IS
	Gro up II	22.5 0	20.5 0	2	8.88	12.4 65	0.4 82	IS
S. Creatinin e	Gro up I	0.71 5	0.63 5	0.0 80	11.1 0	0.17 7	2.0 27	IS
	Gro up II	0.68 5	0.65 5	0.0 30	4.37	0.22 3	0.5 54	IS
B. Urea	Gro up I	21.8 5	21.8 0	0.0 5	0.22	3.66 3	0.9 52	IS

ORIGINAL ARTICLE

December 2024

Gro 27.9 up II 0	25.4 0	2.5 0	8.96	12.3 44	0.3 76	IS
---------------------	-----------	----------	------	------------	-----------	----

Overall Effect of Therapy:

Overall Effect	Group I		Grou	p II	Total	Percentage
	N = 20	%	N = 20	%		
Marked Improvement	0	00	1	05 %	1	2.5 %
Moderate Improvement	7	35 %	11	55 %	18	45 %
Mild Improvement	10	50 %	6	30 %	16	40 %
No Improvement	3	15 %	2	10 %	5	12.5 %

DISCUSSION

Discussion on Probable mode of action of the trial drug

The mode of action of a drug depends upon its *Rasa*, *Guna*, *Virya*, *Vipaka* or *Prabhava*. Present research work was conducted on *Madhuyashti* Granules and *Shirodhara*. To give a contemporary touch to the conventional dosage form, the usage of powdered *Madhuyashti* with milk has been replaced by developing a novel formulation, *Madhuyashti* Granules. This formulation is not only milk soluble but also stable, well-preserved and palatable. In the present study, an effort was made to prepare a palatable, well-preserved and easily administrable formulation of *Madhuyashti Churna* as *Madhuyashti* Granules and to standardize the same.

Probable mode of action of *Madhuyashti* Granules

Madhuyashti is a significant herb with various therapeutic properties that make it particularly beneficial in managing ADHD. ADHD can be associated with an imbalance in Vata and Pitta Doshas, manifesting as symptoms like hyperactivity,

ISSN: 2456-3110 ORIGINAL ARTICLE December 2024

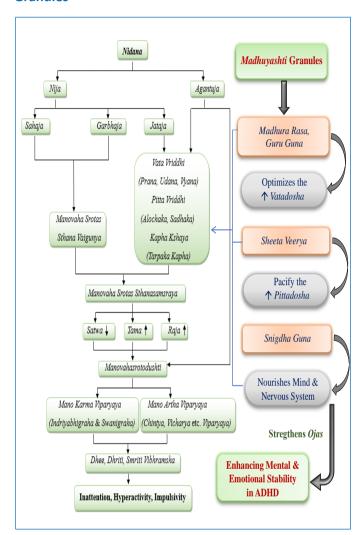
impulsivity, restlessness and difficulty focusing. The *Madhura Rasa* and *Guru Guna* of *Madhuyashti* work to stabilize and ground the mind, counteracting the erratic nature of *Vata* imbalance. Its *Sheeta Virya* also soothes and calms the intense, fiery nature of *Pitta*, which is often linked to irritability, frustration and impulsivity seen in ADHD.

Madhuyashti, which is one among the Medhya Rasayanas, enhances cognitive function, memory and intellect. This makes it particularly useful in ADHD, where cognitive clarity and focus are often impaired. Furthermore, its Snigdha Guna nourishes the mind and nervous system, offering a calming effect that helps reduce hyperactivity and anxiety. The herb is also believed to strengthen the Ojas, the vital essence responsible for immunity, vitality and mental resilience, which is crucial in enhancing mental clarity and emotional stability in ADHD.

neuroprotective effects of Madhuyashti, attributed to its glycyrrhizin and flavonoid content, help protect neurons from oxidative stress, a factor that can contribute to cognitive and behavioural issues in ADHD. Its anti-inflammatory properties may reduce neuroinflammation, potentially improving cognitive function and behaviour. Furthermore, Madhuyashti may modulate neurotransmitter levels, particularly dopamine and serotonin, which are known to play a vital role in ADHD. By influencing neurotransmitters, Madhuyashti might help manage symptoms like impulsivity and hyperactivity.

Moreover, Madhuyashti has adaptogenic properties that support the body's resistance to stress, which is often heightened in individuals with ADHD. This stressreducing effect can have a calming impact, improving the overall symptom profile. Additionally. Madhuyashti supports adrenal health, which is vital for the body's stress response. Balanced adrenal function can help reduce fatigue and anxiety, common coexisting symptoms with ADHD. Thus, Madhuyashti, through its multifaceted actions, offers a holistic approach to managing ADHD, aiding in calming the mind, improving focus, reducing impulsivity and enhancing cognitive function.

Samprapti Vighatana of Unmada by Madhuyashti Granules



Probable mode of action of Shirodhara

Shirodhara is a traditional Ayurvedic therapy that offers a holistic approach to managing ADHD through its calming and balancing effects on the body and mind. The rhythmic and soothing flow of warm oil onto the forehead helps pacify the Doshas by calming the central nervous system. This deep relaxation can reduce hyperactivity and impulsivity, while also soothing the mind, thus mitigating symptoms like irritability and frustration commonly associated with Pitta imbalance.

In addition to balancing the *Doshas, Shirodhara* promotes mental stillness and clarity, enhancing focus and concentration, which are often impaired in individuals with ADHD. The therapy's stress-reducing effects, achieved through the regulation of cortisol

ORIGINAL ARTICLE

December 2024

levels, further contribute to a calmer mental state, which can positively impact behavioural and emotional symptoms. Furthermore, *Shirodhara* improves sleep quality, a critical factor in managing ADHD, as sleep disturbances often exacerbate the condition's symptoms.

Shirodhara also supports emotional stability by calming the mind and nervous system, helping to manage mood swings, irritability and frustration. It fosters a deeper connection between the mind and body, promoting mindfulness and self-regulation, which are essential for individuals with ADHD. Additionally, the therapy enhances *Ojas*, the vital essence responsible for immunity, mental resilience and overall vitality, further supporting mental stability and resilience to stress.

Constant pressure and vibration produced during Shirodhara Amplified by the hollow sinus present in the frontal bone Inward transmission of vibration through the fluid media of **CSF** Application of prolonged pressure stimulate nerve endings of the autonomic nervous system Produce chemical substance like Acetylcholine (activated by a nerve impulse vibration) Decreased activity of Central Nervous System Resulting in tranquillity of mind Relieving symptoms of ADHD.

From a modern scientific perspective, *Shirodhara's* ability to reduce stress, activate the parasympathetic nervous system, improve sleep quality and regulate mood aligns with the management of ADHD. The therapy may also influence neurotransmitter levels, particularly dopamine and serotonin, which are crucial for mood regulation and attention. Moreover, the repetitive, rhythmic nature of *Shirodhara* may enhance neuroplasticity, improving cognitive function and behavioural regulation. Overall, *Shirodhara* provides a non-invasive, complementary therapy that can be integrated into an *Ayurvedic* treatment plan to help manage ADHD symptoms, improve focus, reduce anxiety and enhance overall quality of life.

CONCLUSION

The rising prevalence of ADHD in younger age groups is a growing concern. Contributing factors include increased awareness, improved diagnostic practices and lifestyle changes, such as greater digital media exposure and reduced physical activity, which may exacerbate ADHD symptoms. As per Ayurveda, ADHD is an imbalance in Vata predominant Tridoshas, with traditional treatments focusing on restoring balance through diet, lifestyle modifications, herbal remedies and practices like Yoga and meditation. In Group I, 35% patients showed moderate improvement, 50% showed mild improvement and 15% showed no improvement. In Group II, 5% of patients showed marked improvement, 55% showed moderate improvement, 30% showed mild improvement and 10% showed no improvement. In a study involving 40 patients, the clinical outcomes were statistically significant in both Group I and Group II on the subjective criteria. However, Group II, where patients managed with both Madhuyashti Granules and Shirodhara,, showed slightly better result than Group I, where patients were managed with only Madhuyashti Granules. The comparisons between the two groups showed insignificant results. In clinical practice, combining drug therapy with non-pharmacological approaches such as counselling and cognitive-behavioural therapy can improve the quality of life for ADHD patients. No untoward effect of trial drug was observed during the entire study period.

ISSN: 2456-3110 ORIGINAL ARTICLE December 2024

REFERENCES

- Matas, M. Approach to attention deficit disorder in adults. *Canadian Family Physician*, 2006 Aug; 52(8): 961-964.
- Salvi V., Migliarese G., Venturi V., Rossi F., Torriero S., Viganò V., Cerveri G., Mencacci C. ADHD in adults: Clinical subtypes and associated characteristics. *Rivista di Psichiatria*, 2019 Mar-Apr; 54(2): 84-89.
- 3. Kates, N. Attention deficit disorder in adults: Management in primary care. *Canadian Family Physician*, 2005 Jan;51(1): 53-59.
- 4. www.ncbi.nlm.nih.gov > books > NBK441838

5. Pary R., Lewis S., Matuschka P.R., Rudzinskiy P., Safi M., Lippmann S. Attention deficit disorder in adults. Ann Clin Psychiatry, 2002 Jun;14(2): 105-11.

How to cite this article: Zenia Dharani, Minakshi. A clinical study to evaluate the efficacy of Madhuyashti granules and Shirodhara in the management of Attention Deficit Hyperactivity Disorder (ADHD) in school going children. J Ayurveda Integr Med Sci 2024;12:7-15.

http://dx.doi.org/10.21760/jaims.9.12.2

Source of Support: Nil, **Conflict of Interest:** None declared.

Copyright © 2024 The Author(s); Published by Maharshi Charaka Ayurveda Organization, Vijayapur (Regd). This is an open-access article distributed under the terms of the Creative Commons Attribution License (https://creativecommons.org/licenses/by-nc-sa/4.0), which permits unrestricted use, distribution, and perform the work and make derivative works based on it only for non-commercial purposes, provided the original work is properly cited.