



A Prospective Open-Label Interventional Study Of Effectiveness Of Individualised Homoeopathic Medicine In The Treatment Of Dyspraxia Among School Going Children

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Abstract

Background: Dyspraxia, also known as Developmental Coordination Disorder (DCD), is a neurodevelopmental condition characterized by difficulty in planning and executing coordinated motor tasks. It affects approximately 5–6% of school-aged children worldwide, with a higher prevalence reported in boys than girls (2:1 to 3:1 ratio). A significant proportion of affected children present with associated conditions such as ADHD, learning disabilities, or speech disorders, often leading to underdiagnosis. Affected children may struggle with activities such as writing, dressing, or sports, despite having normal intelligence. This often results in low self-esteem and poor academic performance.

A clinical study was undertaken to assess the effectiveness of Individualised Homoeopathic medicines in improving motor coordination and functional ability among school-going children diagnosed with Dyspraxia. The assessment of improvement was based on the Bruininks–Oseretsky Test of Motor Proficiency (BOT-2) scale, and total scores before and after treatment were compared statistically.

Aim: To study the efficacy of homoeopathic medicine of dyspraxia in school going children 4 years- 12 years.

Materials and Methods: An open-label prospective clinical study was conducted on 50 clinical diagnosed cases of dyspraxia. Cases were assessed before and after treatment using the Bot-2 scale statistical analysis was performed using paired t-test.

Result: The calculated value of t-statistics was found to be 17.377, while its tabulated value at 5% level of significance for 49 degrees of freedom ($p = 0.005$) was 3.000. Clinically, out of 50 cases, 15 cases (30%) showed marked improvement, 22 cases (44%) showed moderate improvement, 10 cases (20%) showed mild improvement, and only 3 cases (6%) remained status quo, with no cases showing deterioration. Since the calculated value was greater than the tabulated value, the null hypothesis was rejected and the alternative hypothesis accepted, indicating significant improvement in symptoms after Homoeopathic treatment.

Conclusion:

Homoeopathic medicines were found to be significantly effective in the treatment and management of Dyspraxia among school-going children.

Key words: Dyspraxia; Developmental Coordination Disorder; Homoeopathy; Motor Coordination.

Introduction

Developmental Coordination Disorder (DCD), often referred to as dyspraxia, is a neurodevelopmental condition that affects a child's ability to plan, coordinate, and execute purposeful movements. This disorder interferes with the performance of daily activities requiring fine and gross motor coordination, such as writing, dressing, balancing, or playing sports. Although intelligence remains unaffected, dyspraxia significantly hampers academic performance, self-confidence, and social participation. Early recognition and intervention are vital for preventing secondary psychological issues like anxiety and low self-esteem that frequently accompany this condition.

Globally, the prevalence of dyspraxia is estimated to range between 5% and 6% among school-aged children, with boys being more frequently affected. In India, nearly one in ten children may experience some degree of coordination difficulty, though many cases go undiagnosed due to limited awareness and lack of standardized screening tools. The disorder often manifests as clumsiness, poor handwriting, balance problems, and difficulties in activities that require sequential or complex movements. Many children with dyspraxia also experience comorbidities such as attention deficit hyperactivity disorder (ADHD), autism spectrum disorder (ASD), and learning disabilities. These comorbid conditions further complicate management and increase the risk of emotional distress, making multidisciplinary care essential.

AIM AND OBJECTIVES

Aim:

To study the efficacy of individualised medicine in school going children aged 4-12 years diagnosed with dyspraxia.

Objectives:

1. To study the clinical presentation of Dyspraxia in school going children at Sri Ganganagar.
2. To explore a group of most effective Homoeopathic medicines in the treatment of dyspraxia.

Materials and Methods:**Study Design**

Open-label prospective clinical study.

Sample Size

50 Paediatric cases

Study Setting

Sri Ganganagar Homoeopathic Medical College, Hospital and Research Institute, Sri Ganganagar, Rajasthan.

Study Duration

One Year.

Inclusion criteria:

1. Children between the ages of 4–12 years who had been diagnosed with Dyspraxia.
2. Patients having an average and above-average intelligence.
3. Children of both sexes.

Exclusion criteria:

1. Patients below 4 years and above 12 years of age were excluded.
2. Patients with visual or hearing impairment were excluded.
3. Patients with other congenital, neurological problems, chromosomal disorders were excluded.
4. Patients of unwilling parents were excluded.

Assessment Criteria

Assessment was done using the Bruininks–Oseretsky Test of Motor Proficiency-Second edition (BOT-2).

Treatment Plan

Medicine were prescribed based on individual case-taking, repertorization, and Materia Medica consultation. Potency and repetition were decided as per homoeopathic principles.

Statistical Analysis

Paired t-test was used to compare pre- and post-treatment symptom scores. A p-value <0.05 was considered statistically significant.

Results

Table 1 Distribution of 50 cases of dyspraxia according to their age

S. No	Age Group (years)	No. of cases	Percentage %
1	04-07 years	32	64%
2	08-12 years	18	36%
	Total	50	100%

Table 2. Distribution of 50 cases of Dyspraxia according to their sex.

S. No.	Sex	No. of cases	Percentage %
1	Male	27	54%
2	Female	23	46%
	Total	50	100%

Table 3. Distribution of 50 cases of Dyspraxia according to their religion.

S. No.	Religion	No. of cases	Percentage %
1	Hindu	45	90%
2	Muslim	1	2%
3	Sikh	4	8%
	Total	50	100%

Table 4. Distribution of 50 cases of Dyspraxia according to their Habitat.

S. No.	Socio-Economic status	No. of cases	Percentage %
1	Urban	19	38%
2	Rural	31	62%
	Total	50	100%

Table 5. Distribution of 50 cases of Dyspraxia according to their Socio-Economic status.

S. No.	Socio-Economic status	No. of cases	Percentage %
1	Lower Class	37	74%
2	Middle Class	10	20%
3	Upper Class	3	6%
	Total	50	100%

Table 6 : Distribution of 50 cases of Dyspraxia according to their clinical symptoms.

S.no	Clinical Symptom	Frequency (n=50)	Percentage (%)
1	Handwriting difficulty	13	26%
2	Balance problems	11	22%
3	Speech difficulty	6	12%
4	Clumsiness	6	12%
5	Fine motor difficulty	5	10%
6	Falls	5	10%
7	Poor coordination	5	10%
8	Grip weakness	4	8%
9	Sports difficulty	5	10%
10	Dressing difficulty	3	6%

Table 7: Distribution of 50 cases of Dyspraxia according to their severity index of BOT-2 Scale.

S. No	Severity Index (BOT-2 scale).	No. of cases	Percentage %
1	Low (70-90)	19	38%
2	Moderate (90-110)	25	50%
3	Severe (>110)	6	12%
	Total	50	100%

Table 8: Distribution of 50 cases of Dyspraxia according to their miasm

S. No	Miasm	No. of cases	Percentage %
1	Psoric	10	20%
2	Sycotic	8	16%
3	Syphilitic	18	36%
4	Tubercular	14	28%
	Total	50	100%

Table 9: Distribution of fifty cases of Dyspraxia according to their prescribed remedy

S. No	Prescribed Remedy	No. of Cases	Percentage (%)
1	Cal Phos	14	28%
2	Baryta Carb	12	24%
3	Silicea	11	22%
4	Phos	9	18%
5	Lycopodium	4	8%
	Total	50	100%

Table 10: Distribution of fifty cases of Dyspraxia according to their outcome

S. No	Outcome	No. of cases	Percentage %
1	Mild	10	20%
2	Moderate	22	44%
3	Marked	15	30%
4	Status Quo	3	6%
	Total	50	100%

Discussion

The present prospective, open-label interventional study demonstrated statistically significant improvement in motor coordination among children with dyspraxia following individualized homoeopathic treatment. The significant difference between pre- and post-treatment BOT-2 scores suggests that constitutional prescribing may positively influence motor planning and coordination. The majority of cases showed marked to moderate clinical improvement, indicating both statistical and practical relevance. However, the absence of a control group and blinding limits the strength of causal interpretation.

Conclusion

The study concludes that individualized homoeopathic treatment is statistically significant and clinically beneficial in improving motor coordination among children with dyspraxia ($p < 0.05$). The findings suggest that homoeopathy may serve as a supportive and safe therapeutic approach in the management of developmental coordination disorder.

Future Scope

Further research through randomized controlled trials with larger sample sizes and longer follow-up periods is recommended to strengthen the evidence base. Inclusion of control groups, blinding procedures, and multicentric collaboration would enhance methodological rigor and help establish clearer clinical guidelines for homoeopathic management of dyspraxia.

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