

The Study of the Effect of Chanting ‘Om’ Sound on ADHD Students of Primary School in District Yamuna Nagar

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Abstract – Attention-Deficit/Hyperactivity Disorder (ADHD) is a neurodevelopmental condition commonly associated with difficulties in attention, hyperactivity, impulsivity, and behavioral self-regulation, which may affect students’ academic performance and classroom adjustment. The present study, “The Study of the Effect of Chanting ‘Om’ Sound on ADHD Students of Primary School in District Yamuna Nagar,” aims to examine the potential effects of regular chanting of the ‘Om’ sound on selected behavioral and attentional characteristics of primary-school students identified with ADHD in District Yamuna Nagar. The study focuses on whether a structured and supervised practice of Om chanting may contribute to improvements in attention, concentration, emotional calmness, behavioral regulation, and classroom participation. A suitable experimental or quasi-experimental research design may be employed, involving pre-test and post-test assessment of students before and after a defined period of Om chanting practice. Standardized behavioral and attention-related assessment tools, along with observations from teachers and parents, may be used to evaluate changes in relevant outcomes. The study recognizes that Om chanting may function as a relaxation and mindfulness-based practice by encouraging controlled breathing, focused attention, and a calm mental state. However, its effectiveness should be evaluated scientifically and should not be considered a replacement for evidence-based clinical assessment or treatment for ADHD. The findings of the study may contribute to understanding whether supervised chanting and mindfulness-oriented practices can serve as supportive, complementary activities within school environments for promoting attention and behavioral well-being among primary-school students.

Keywords – ADHD, Om Chanting, Primary School Students, Attention, Concentration, Behavioral Regulation, Mindfulness, Relaxation, Neurodevelopmental Disorders, School-Based Intervention, Yamuna Nagar.

I. INTRODUCTION

Attention-Deficit/Hyperactivity Disorder (ADHD) is one of the most common neurodevelopmental disorders affecting children. It is characterized by persistent patterns of inattention and/or hyperactivity-impulsivity that interfere with a child's functioning and development (American Psychiatric Association, 2022;). Children with ADHD may experience difficulties in sustaining attention, completing tasks, controlling impulses, following classroom instructions, and regulating their behavior (American Psychiatric Association, 2002. These difficulties can negatively influence academic achievement, classroom participation, peer relationships, and overall school functioning (Wolraich et al., 2019).

ADHD is not simply a problem of academic performance or classroom discipline. It is a developmental condition that may affect several areas of a child's life. Appropriate assessment generally requires information from parents, teachers, and other relevant sources, as symptoms and functional difficulties should be considered across settings (Wolraich et al., 2019). Behavioural and educational interventions therefore have an important role in supporting children with ADHD, particularly within the school environment.

Although pharmacological treatment is an important evidence-based approach for ADHD, interest has also

increased in complementary and non-pharmacological interventions. Mindfulness-based practices have received considerable attention because they involve focused attention, awareness of present experiences, and self-regulation. A meta-analytic review by Cairncross and Miller (2020) found that mindfulness-based therapies showed potential benefits for reducing symptoms of ADHD, including inattention and hyperactivity/impulsivity. However, the authors also noted the need for further research to establish the effectiveness of such approaches.

Mindfulness and meditation practices may be particularly relevant to children because they can be adapted into brief and structured activities within educational settings. Such practices may provide opportunities for children to develop attention control and emotional self-regulation. School-based interventions are also important because many of the difficulties associated with ADHD become particularly evident in classroom situations (Wolraich et al., 2019). Om chanting is a traditional Indian contemplative practice involving the repeated vocalization of the sound “Om.” The practice is commonly associated with meditation, concentration, and relaxation. Scientific research has begun to investigate the physiological and neurophysiological effects of Om chanting. Kalyani et al. (2011), using functional magnetic resonance imaging, examined the neurohemodynamic correlates of audible Om chanting in healthy adults. Their study reported significant deactivation

in several limbic and related brain regions during Om chanting compared with a resting condition, suggesting that the practice may influence neural processes associated with emotional and attentional regulation.

Similarly, Harne and Hiwale (2018) investigated the effects of Om mantra meditation using electroencephalography (EEG). Their study involved 23 participants who performed loud Om chanting, and the researchers examined changes in EEG activity before and after meditation. The findings indicated changes in EEG activity following Om chanting, providing preliminary evidence that the practice may influence brain activity.

The possible relationship between chanting, focused attention, and self-regulation provides a basis for investigating whether Om chanting may be useful as a complementary practice for children experiencing ADHD-related difficulties. However, it is important to recognize that research specifically examining Om chanting among children with ADHD remains limited. Much of the available research on Om chanting has involved healthy adults rather than children diagnosed with ADHD (Harne & Hiwale, 2018; Kalyani et al., 2011). Therefore, further research is required to determine whether this practice can produce measurable improvements in attention and behaviour among school-age children.

Mindfulness-based interventions provide a broader theoretical basis for the present study. In their meta-analysis, Cairncross and Miller (2020) reported overall effects suggesting potential reductions in inattention and hyperactivity/impulsivity following mindfulness-based interventions for ADHD. Their findings support further investigation of simple attention-focused practices while also highlighting the need for rigorous research.

Om chanting may have practical advantages in a school setting because it requires little equipment, can be conducted in a relatively short period, and may be incorporated into routine classroom or school activities. Nevertheless, it should be considered a complementary intervention rather than a replacement for established ADHD assessment and treatment (Wolraich et al., 2019). In this context, the present study was undertaken to examine the effect of chanting the “Om” sound on primary school students with ADHD symptoms in District Yamuna Nagar, Haryana. The study specifically focuses on changes in attention, concentration, and behaviour following a structured four-week Om chanting intervention.

II. STATEMENT OF THE PROBLEM

The problem of the study was stated as:

“The Study of the Effect of Chanting ‘Om’ Sound on ADHD Students of Primary School in District Yamuna Nagar.”

Objectives of the Study

The objectives of the study were:

- To identify the level of students with ADHD Symptoms among primary school students In district yamanagar.
- To study the effect of om chanting on the Attention and concentration of primary school Students diagnosed with ADHD.
- To compare the behavior pattern of students with a d before and after the Om chanting invention.
- To examine whether the effects of om chanting differs according to gender among primary school students with ADHD.

Research Hypothesis

- H1:- There is a significant effect of 'Om' chanting on sound on the primary school students with ADHD.
- H2: There is a significant effect of 'Om' Chanting on the behavior pattern of students on primary school students with ADHD.
- H3: There will be a significant difference in the behavior pattern of primary school students with ADHD symptoms in the experimental group before and after the intervention of Om chanting.
- H4: The effect of Om chanting on attention and concentration will differ significantly between male and female primary school students with ADHD symptoms.

III. METHODOLOGY OF THE STUDY

The study adopted a quasi-experimental research design using a pre-test and post-test control group design. The study was conducted among primary school students of selected schools in Yamuna Nagar District, Haryana.

The total population consisted of 400 primary school students. Through screening, observation, and ADHD assessment procedures, 60 students showing ADHD-related symptoms were selected using purposive sampling. The selected students were divided into two groups:

- Experimental Group: 30 students who participated in the Om chanting programme.
- Control Group: 30 students who continued their regular school activities.

The experimental group received the Om chanting intervention for four weeks. The sessions were conducted five days per week, with each session lasting approximately 15 minutes. The intervention included a settling phase, guided Om chanting, and relaxation phase.

Data were collected through ADHD behaviour rating scales, observation checklists, teacher feedback, and pre-test and post-test assessments. The collected data were analysed using Mean, Standard Deviation, and paired sample t-test.

Distribution of Population and Selected Students

Class/Group	Total Students in Population	Selected Students
Nursery + L.K.G.	120	25
U.K.G.	74	14
Class I	56	10
Class II	65	9
Class III	85	2
Total	400	60

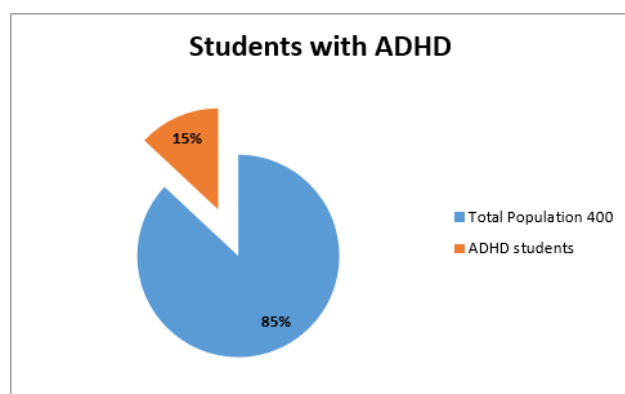


Figure: 1 Showing selected students

IV. ANALYSIS OF EXPERIMENTAL GROUP

Comparison of Pre-test and Post-test Scores of the Experimental Group (N = 30)

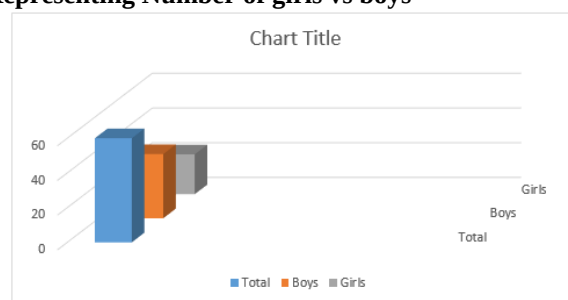
Test	N	Mean	Standard Deviation
Pre-test	30	5.33	1.83
Post-test	30	9.20	1.88

Interpretation

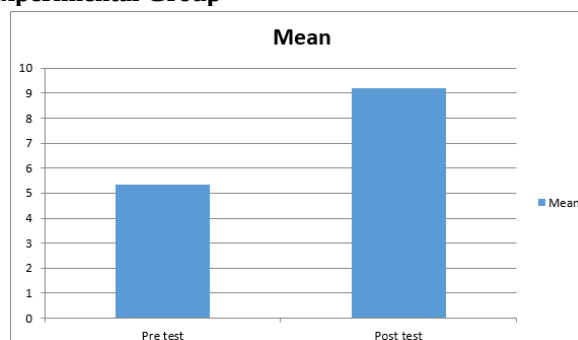
Table 4.2 presents the descriptive statistics of the experimental group before and after the Om chanting intervention. The mean score increased from 5.33 in the pre-test to 9.20 in the post-test, showing a substantial improvement following the intervention. The standard deviation changed only slightly from 1.83 to 1.88, indicating that the variability in scores remained relatively stable across the two assessments.

The increase in the mean score suggests that regular participation in the Om chanting programme was associated with improved performance on the ADHD assessment.

Representing Number of girls vs boys



Comparison of mean Pre-test and Post-test Scores of the Experimental Group



Significance of Difference Between Pre-test and Post-test Scores of the Experimental Group

Paired Sample t-Test for the Experimental Group (N = 30)

Group	Mean Difference	df	Calculated t-value	Tabulated t-value (0.05 level)	Result
Experimental	3.87	29	14.59	2.045	Significant

Interpretation

The calculated t-value for the experimental group was 14.59, which is much higher than the tabulated t-value of 2.045 at the 0.05 level of significance with 29 degrees of freedom.

Since the calculated t-value is greater than the critical value, the null hypothesis is rejected. This indicates that the difference between the pre-test and post-test scores of the experimental group is statistically significant.

The findings suggest that the Om chanting intervention was associated with a significant improvement in the measured outcomes among students with ADHD.

Analysis of Control Group

Comparison of Pre-test and Post-test Scores of the Control Group (N = 30)

[1] Test	[2] N	[3] Mean	[4] Standard Deviation
[5] Pre-test	[6] 30	[7] 4.93	[8] 1.70
[9] Post-test	[10] 30	[11] 5.13	[12] 1.04

Interpretation

Table 4.4 shows the descriptive statistics of the control group. The mean score increased only slightly from 4.93 in the pre-test to 5.13 in the post-test. The mean difference was only 0.20, indicating minimal improvement during the study period.

The standard deviation decreased from 1.70 to 1.04, suggesting somewhat less variation in post-test scores; however, the change in the mean score remained very small.

Significance of Difference Between Pre-test and Post-test Scores of the Control Group

Paired Sample t-Test for the Control Group (N = 30)

Group	Mean Difference	df	Calculated t-value	Tabulated t-value (0.05 level)
Control	0.20	29	0.44	2.045

Interpretation

The calculated t-value of the control group (0.44) is less than the tabulated t-value (2.045) at the 5% level of significance.

Therefore, the null hypothesis is accepted for the control group, indicating that there was no statistically significant difference between the pre-test and post-test scores. The findings suggest that students who did not participate in the Om chanting programme showed no meaningful improvement during the study period.

Comparative Analysis of Experimental and Control Groups

Group	Pre-test Mean	Post-test Mean	Mean Difference	Calculated t-value
Experimental	5.33	9.20	3.87	14.59
Control	4.93	5.13	0.20	0.44

Interpretation

Table 4.6 presents a comparison of the experimental and control groups. The experimental group demonstrated a marked increase in the mean score from 5.33 to 9.20, with a mean difference of 3.87. The paired sample t-test indicated that this improvement was statistically significant.

In contrast, the control group showed only a slight increase in the mean score from 4.93 to 5.13, with a mean difference of 0.20. The calculated t-value for the control group was not statistically significant.

The comparison indicates that the improvement observed in the experimental group was substantially greater than that of the control group, suggesting that participation in the Om chanting programme was associated with improved outcomes among students with ADHD.

Fig Comparison of Post-test between Experimental and Control Group

Major Findings of the Study

The major findings of the study were as follows:

- The experimental group showed significant improvement after participating in the Om chanting programme.
- The mean score of the experimental group increased from 5.33 in the pre-test to 9.20 in the post-test, showing an improvement of 3.87 points.
- The calculated t-value of the experimental group was 14.59, which was higher than the tabulated value of 2.045 at the 0.05 level of significance. This indicated that the improvement was statistically significant.
- The control group showed only slight improvement. The mean score increased from 4.93 in the pre-test to 5.13 in the post-test.
- The calculated t-value of the control group was 0.44, which was lower than the tabulated value of 2.045, indicating that the improvement was not statistically significant.
- The comparison between experimental and control groups indicated that students who participated in Om chanting demonstrated greater improvement in ADHD-related behavioural outcomes.

V. DISCUSSION OF FINDINGS

The findings of the study revealed that regular practice of Om chanting positively influenced students with ADHD. The improvement observed among experimental group students may be attributed to the combined effects of rhythmic sound repetition, controlled breathing, and focused attention involved in chanting.

Om chanting may help children develop better concentration, emotional control, and behavioural regulation. The results support previous research on mindfulness, meditation, yoga, and sound-based interventions that suggest positive effects on attention and psychological well-being.

The study also highlights the importance of culturally appropriate and easily implementable interventions in school environments. Since Om chanting requires minimal resources and can be incorporated into daily school routines, it may serve as a supportive strategy for children experiencing attention and behavioural difficulties.

VI. CONCLUSIONS

Based on the findings, the following conclusions were drawn:

- ADHD creates significant challenges in attention, classroom behaviour, and emotional regulation among primary school students.

- The Om chanting programme produced significant improvement among students in the experimental group.
- Students who participated in regular Om chanting sessions showed better attention and behavioural outcomes compared to students who did not receive the intervention.
- Om chanting can be considered a simple, economical, and culturally acceptable complementary intervention for supporting children with ADHD.
- School-based implementation of Om chanting may contribute to creating a calm and supportive learning environment.

Final Summary

The present study examined the effect of Om chanting on primary school students with ADHD in Yamuna Nagar District. The findings demonstrated that students who participated in the Om chanting intervention showed significant improvement compared to those who did not participate. The study suggests that Om chanting may serve as an effective, low-cost, and culturally acceptable complementary approach for improving attention, behavioural regulation, and emotional stability among children with ADHD. The findings contribute to educational research by highlighting the potential of traditional mindfulness-based practices in supporting inclusive education and child development.

REFERENCES

1. American Psychiatric Association. (2022). Diagnostic and statistical manual of mental disorders (5th ed., text rev.; DSM-5-TR). American Psychiatric Association Publishing.
<https://doi.org/10.1176/appi.books.9780890425787>
2. Cairncross, M., & Miller, C. J. (2020). The effectiveness of mindfulness-based therapies for ADHD: A meta-analytic review. *Journal of Attention Disorders*, 24(5), 627–643.
<https://doi.org/10.1177/1087054715625301>
3. Harne, B. P., & Hiwale, A. S. (2018). EEG spectral analysis on OM mantra meditation: A pilot study. *Applied Psychophysiology and Biofeedback*, 43(2), 123–129. <https://doi.org/10.1007/s10484-018-9391-7> PubMed
4. Kalyani, B. G., Venkatasubramanian, G., Arasappa, R., Rao, N. P., Kalmady, S. V., Behere, R. V., Rao, H., Vasudev, M. K., & Gangadhar, B. N. (2011). Neurohemodynamic correlates of 'OM' chanting: A pilot functional magnetic resonance imaging study. *International Journal of Yoga*, 4(1), 3–6.
<https://doi.org/10.4103/0973-6131.78171>
5. Wolraich, M. L., Hagan, J. F., Jr., Allan, C., Chan, E., Davison, D., Earls, M., Evans, S. W., Flinn, S. K., Froehlich, T., Frost, J., Holbrook, J. R., Lehmann, C. U., Lessin, H. R., Okechukwu, K., Pierce, K. L.,

Winner, J. D., & Zurhellen, W. (2019). Clinical practice guideline for the diagnosis, evaluation, and treatment of attention-deficit/hyperactivity disorder in children and adolescents. *Pediatrics*, 144(4), Article e20192528.
<https://doi.org/10.1542/peds.2019-2528>