

A Study of Attention Deficit Hyper Disorder (ADHD) Problem of Dyslexic Children

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ABSTRACT: *The ADHD and Dyslexia both hamper the learning ability of children in classroom. An estimated of 15.99% of Dyslexic children are found in every classroom. In classroom 5.60% of the children are ADHD children in the classroom. The study was undertaken to investigate the correlation of dyslexia and ADHD in school going children. A Survey method was used and sample of 963 students were selected through random sampling technique. The SDTD-J test by Dr. Khan Zeenat and S.B. Dandegaonkar was used for identifying the percentage of dyslexic children in classroom and James E. Gilliam test was used for identifying the percentage of ADHD children in the classroom. The findings also showed that there 35.06% of the dyslexic children also have ADHD problems.*

KEYWORDS: *Dyslexia, Attention deficit hyper disorder*

INTRODUCTION

ACCORDING TO AMERICAN PSYCHOLOGICAL ASSOCIATION IN THE DSM-5 (2002)

“As a lifelong, persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development across time and settings.”

ACCORDING TO NATIONAL INSTITUTE OF HEALTH SCIENCE (2002)

“Dyslexia is a learning disability which hinders the person’s ability to read, write and sometimes to spell and sometimes to speak”.

Dyslexia is a specific learning disability (LD) that is neurologically based. It is language-based and makes learning to read, spell, decode, and recognize words challenging. As a result, reading comprehension, vocabulary, and general knowledge is reduced compared to other children the same age who do not have dyslexia. Remember, dyslexia is not a reflection of intelligence. Most people with dyslexia have normal or above average intelligence (Chadda, 2001).

Dyslexic children and children with AD/HD have some similar characteristics. Dyslexic children, like children with AD/HD, may have difficulty paying attention because reading is so demanding that it causes them to fatigue easily, limiting the ability to sustain

concentration. People with dyslexia and those with AD/HD both have difficulty with reading. The typical dyslexic writer has significant problems with spelling, grammar, proofreading, and organization. The AD/HD writer often has difficulty with organization and proofreading. Both the dyslexic writer and the AD/HD writer may have handwriting difficulties (International Dyslexia association, 2017).

REVIEW OF RELATED LITERATURE

RELATIONSHIPS BETWEEN ADHD AND DYSLLEXIA SCREENING SCORES AND ACADEMIC PERFORMANCE IN UNDERGRADUATE PSYCHOLOGY STUDENTS: IMPLICATIONS FOR TEACHING, LEARNING AND ASSESSMENT: The impact of dyslexia and ADHD characteristics on study in higher education has been relatively neglected. This study investigates the prevalence of self-reported dyslexia and ADHD characteristics in 1182 undergraduate psychology students at four universities. Findings suggest that there is a high incidence of undiagnosed students in the ‘at risk’ categories for both dyslexia and ADHD. Whilst no relationship was found between achievement data and dyslexia scores, there were strong negative associations between ADHD subscale scores (inattention, hyperactivity or impulsivity and overall ADHD) and academic grades, indicating that those who score higher on ADHD rating scales are performing more poorly in academic tests than their lower scoring peers. Assessment results indicate that specific modes of assessment

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(multiple choice questions) may pose particular problems for high inattentive or ADHD scorers. The study suggests a need to focus on the identification and provision of support for students with problems related to ADHD characteristics, and indicates that many students, other than those who 'declare' a learning difficulty, would benefit from further support (Pope et al., 2007; Dandekar, 2002).

SPECIFIC LEARNING DISABILITY-A 5 YEAR STUDY FROM INDIA: The study has a descriptive design. Children diagnosed with SLD over a 5 years' period were included, total being 2015. The data was collected using a semi-structured proforma, (based on the aspects covered during child's comprehensive assessment at the time of visit), which included socio-demographic aspects, perinatal and childhood details, scholastic and referral details, and comorbid psychiatric disorders (Singh et al., 2017).

Majority of the children were from English medium schools, in 8-12 years' age group, with a considerable delay in seeking medical help, were referred mostly by the teachers for academic issues. Most of them had all the three disabilities-dyslexia, dysgraphia and dyscalculia. 38.56% of children had ADHD. Psychological maternal stress, developmental issues and various co-morbidities were accompanying in many cases, of which speech delay and fine motor issues were more in children having comorbid ADHD (Kirk, 1962).

RATIONALE/SIGNIFICANCE OF THE PROBLEM

During my school visits, I found that many children feel restless and continuously keep on moving from one place to another without focusing on the lesson taught by the teacher. The teacher is less bothered about such children and does not pay the attention towards them that not only teachers are in a position to diagnose the actual problem due to unawareness about it, neither the parents are aware of the actual problems of this children. Both the Parents and teachers keep on labeling them that they are Notorious by nature. Due to Ignorance, the hyperactivity and Inattention problems become more aggressive which affects their reading and writing and in turn it ultimately affects the Academic performance of the students in the classroom (Lokhanda, 2010).

Improper diagnosing and improper treatment by both the parents and teachers motivated me to take this topic and compel me to investigate the common characteristics of Dyslexic and ADHD children, which could help the teachers to properly diagnose the problems and provide them with proper Remedial teaching (Venkatesan, 2004).

OBJECTIVES

- To find the percentage of Dyslexic children in the classroom.
- To find the percentage of ADHD children in the classroom.
- To find the percentage of the Dyslexic children with ADHD Co morbidity.
- To study the Educational problems of Dyslexic children.
- To study the reading Problems of Dyslexic children.
- To study the writing (polysyllable words) Problems of Dyslexic children.
- To study the Spelling Problems of Dyslexic children.

- To study the Educational problems of Attention deficit hyper disorder (ADHD) students.
- To study the Inattention problem of ADHD children.
- To study the Impulsivity Problem of ADHD children.
- To study the hyperactivity problem of ADHD children.
- To study the correlation of Dyslexia with Impulsivity.
- To study the correlation of Dyslexia with Inattention/Hyperactivity.
- To study the correlation between dyslexia and Attention deficit hyper disorder.

HYPOTHESES

- The percentage of Dyslexic children in the classroom is low.
- The percentage of ADHD students in the class is low.
- The percentage of Dyslexic students with ADHD co morbidity is high.
- The Educational Problems of dyslexic children is high
- The reading Problems of Dyslexic children are high.
- The writing (Polysyllable words) Problems of Dyslexic children are high.
- The Spelling Problems of Dyslexic children are high.
- The Educational Problems of ADHD children are high.
- The Inattention problem of ADHD children is high.
- The Impulsivity Problem of ADHD children are high.
- The hyperactivity problem of ADHD children is high.
- There is a positive correlation between Dyslexia and Impulsivity.
- There is a positive correlation between Dyslexia and Inattention/Hyperactivity.
- There is a Positive correlation between Dyslexia and attention deficit hyper disorder.

DEFINITIONS OF THE IMPORTANT TERMS

ATTENTION DEFICIT HYPER DISORDER PROBLEM:

ADHD is a commonly diagnosed mental disorder of children with hyperactive and unable to control their impulses or may have trouble paying attention.

DYSLEXIC CHILDREN: The children who are weak in reading, writing and speaking.

SCOPE AND LIMITATIONS

SCOPE:

- It has wide applicability in Education for special children.
- It helps in designing the curriculum and syllabus for dyslexic children and ADHD Children.

LIMITATIONS:

- The study was limited only to English medium students.
- It was limited only to V STD students.
- The study is limited only to age group (10-12 years).

ASSUMPTION

The Dyslexic student has High Attention deficit hyper disorder problem (ADHD).

SAMPLING DESIGN: It is presented in Figure 1.

SIZE OF THE SAMPLE: The researcher after defining the population has also determined the size of the sample. The Eight English medium schools were selected, out of this population, The 963 students from V standard were selected and screening and diagnostic test of Dyslexia (SDTD-j) by Dr. Khan Zeenat Muzaffar and S.B. Dandegaonkar test was administered to the students. Out of these 963 students 154 were found (Khan, 2017; Singh, 1997).

TYPES OF THE VARIABLES INVOLVED IN THE STUDY

INDEPENDENT VARIABLE OR EXPERIMENTAL VARIABLE: An Experiment was conducted to examine the effect of variable or treatment, which is known as experimental variable. The main attention was given to observe its effect. The Dyslexia is experimental or Independent Variable in this study (Yssel, 1998).

DEPENDENT VARIABLE: The basis on which effectiveness of the experimental variable is established or studied is known as criterion variable. The Attention Deficit Hyper Disorder (ADHD) is the criterion Variable or dependent variable.

TOOLS

- SDTD-J Screening and Diagnostic test of Dyslexia by Dr. Khan Zeenat Muzaffar and S.B. Dandegaonkar
- ADHD –Attention deficit hyper Disorder –by James E. Gilliam.
- ADHD test -Neeta Jain and Gunthey Ravi.

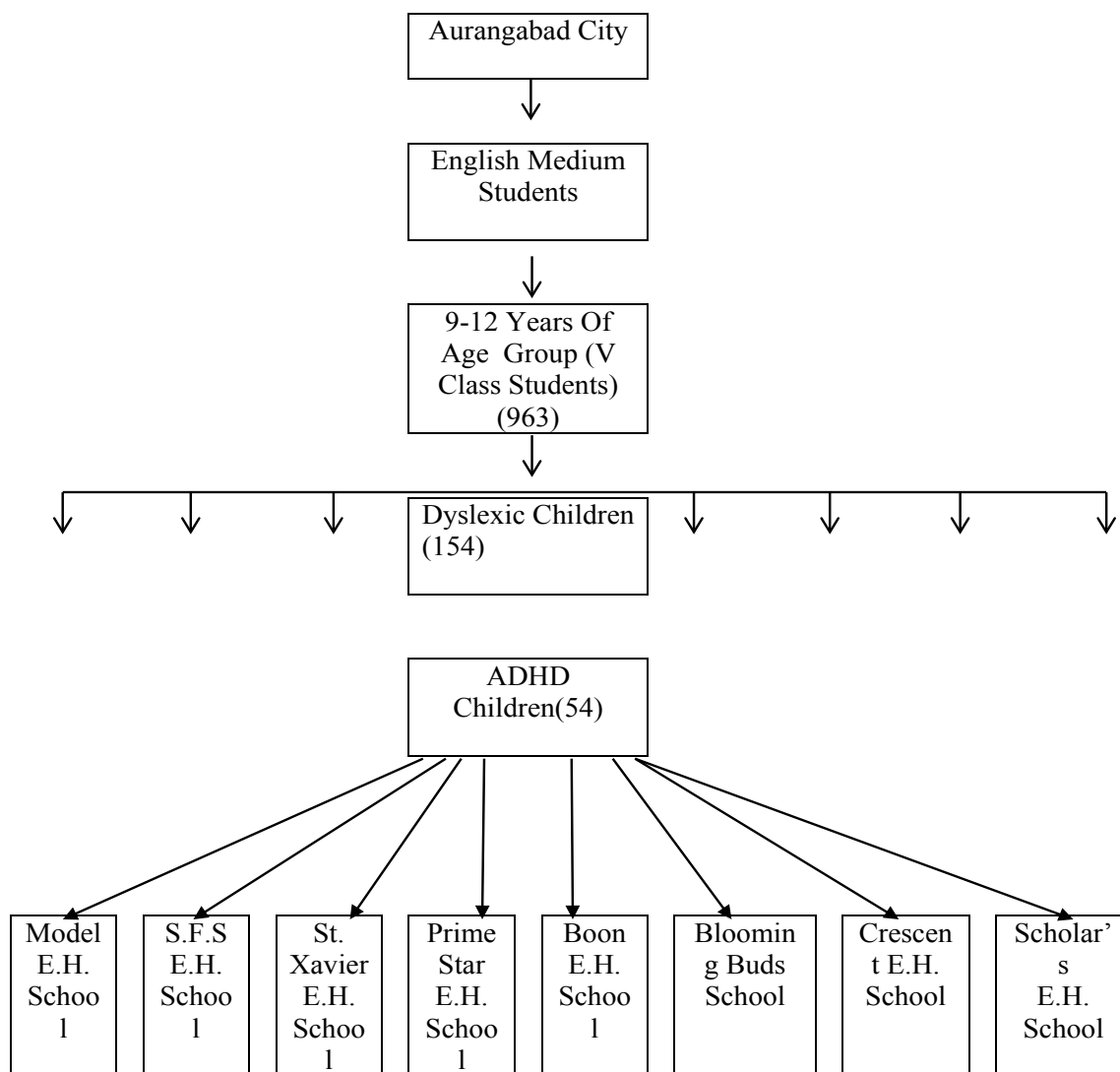


Figure 1. Sample design

- ADHD Test -Dr. Khan Zeenat Muzaffar.

STATISTICAL TECHNIQUE

- Mean
- Percentage
- Pearson Product Moment Correlation Technique was used

TESTING OF HYPOTHESES

HYPOTHESES 1: The hypothesis number 01 was accepted as 15.99% of the students in the total sample were identified as Dyslexic children in the classroom (Table 1).

HYPOTHESES 2: The hypothesis number 02 was accepted as 5.60% of the students in the total sample were identified as ADHD children in the classroom (Table 2).

HYPOTHESES 3: The hypothesis number 03 was rejected, as 35.06% of the Dyslexic students in the total sample was identified as having co morbidity of ADHD in the classroom (Table 3).

HYPOTHESES 4: The Educational Problems of dyslexic children are high.

HYPOTHESES 4.1: The Hypothesis Number 4.1 was accepted as 65% of the Dyslexic students in the total sample were not in a position to read even 5 words properly out of 25 words in the given stanza (Table 4.1).

HYPOTHESES 4.2: The Hypothesis Number 4.2 was accepted as 82% of the Dyslexic students in the total sample were not able to write single word of polysyllable (Table 4.2).

HYPOTHESES 4.3: The Hypothesis Number 4.3 was accepted as 80% of the Dyslexic Children in the total sample committed spelling errors between 15-20 words, out of 20 words (Table 4.3).

HYPOTHESES 5: The Educational Problems of ADHD children are high.

HYPOTHESES 5.1: The hypothesis 5.1 is accepted as 72.22% of the ADHD children show high Inattention problem (Table 5.1).

HYPOTHESES 5.2: The hypothesis 5.2 is accepted as 45.16% of the ADHD children show high Impulsivity problem (Table 5.2).

HYPOTHESES 5.3: The hypothesis 5.3 is accepted as 44.62% of the ADHD children show high Hyperactivity problem (Table 5.3).

HYPOTHESES 6: The hypothesis No. 06 is accepted as correlation value is 0.5142, which indicates that positive correlation between Dyslexia and Impulsivity (Table 6).

HYPOTHESES 7: The Hypothesis no.7 is accepted as the correlation value is 0.7163, which indicates positive correlation between Dyslexia and Inattention (Table 7).

HYPOTHESES 8: The hypothesis No. 08 is accepted as correlation value is 0.4157, which indicates that low positive correlation between Dyslexia and ADHD (Table 8).

Table 1.

The percentage of dyslexic children in the classroom is low

Sr.No.	Total number of children to whom the SDTD-J test was administered(N)	Total number of children identified as dyslexic children.	Percentage of dyslexic children
1.	963	154	15.99%

Table 2.

The percentage of ADHD students in the classroom is low

Sr.no.	Total number of children to whom the ADHD test was administered (N)	Total number of students identified as ADHD children.	Percentage of ADHD children
1.	963	54	5.60%

Table 3.

The percentage of dyslexic students with ADHD co morbidity is high

Sr. no.	Total number of dyslexic children to whom the ADHD test was administered (N)	Total number of dyslexic students identified as ADHD children	Percentage of dyslexic children with ADHD Co morbidity
1.	154	54	35.06%

Table 4.1

The reading problems of dyslexic children are high

Sr. no	Total no. of subjects	Components of Reading	No. of errors	No. of students	Percentage of students	Interpretation
1.	154	The children were not able to read the stanza and committed spelling errors; they deleted the words and also added the words while reading. They read only 0 to 5 words properly in whole stanza of 25 words.	21-25	100	65%	Very poor
2.		Children were able to read only 6 to 10 words	15-20	46	30%	Poor
3.		Children were able to read 11 to 15 words properly.	10-15	08	5%	Satisfactory

Table 4.2
The writing (polysyllable words) problems of dyslexic children is high

Sr. no.	Total no. of subjects	Components of Reading	No. of Errors	No. of students	Percentage of students	Interpretation
1.	154	Children we're not able to write single word of polysyllable.	05	126	82%	Very poor
2.		Children wrote 1 polysyllable word.	04	15	10%	Poor
3.		Children wrote 2 polysyllable words.	03	05	3%	Satisfactory
4.		Children wrote only 3 polysyllable words.	02	04	2.5 %	Very satisfactory
5.		children wrote only 4 to 5 polysyllable words	01	04	2.5 %	Good

Table 4.3
The spelling problems of dyslexic children are high

Sr. no.	Total no. of subjects	Components of Reading	No. of Errors	No. of Children	Percentage of children	Interpretation
1.	154	Children were not able to write single word of polysyllable.	20-25	123	80%	Poor
2.		Children committed errors between 11-15 out of 20 words.	06-10	31	20%	Satisfactory

Table 5.1
The inattention problem of adhd children are high

Sr. no.	Variables	Total no. of subjects (N)	High	Average	Low	Total
1.	Inattention	154	91	25	10	154
Percentage			72.22	19.84	7.93	100%

Table 5.2
The impulsivity problem of adhd children are high

Sr.no.	Variables	Total no. of subjects (N)	High	Average	Low	Total
1.	Impulsivity	154	56	43	25	154
Percentage			45.16%	34.67%	20.16	100%

Table 5.3
The hyperactivity problem of adhd children are high

Sr.no.	Variables	Total no. of subjects (N)	High	Average	Low	Total
1.	Hyperactivity	154	54	43	24	154
Percentage			44.62%	34.67%	19.83%	100%

Table 6.
There is a positive correlation between Dyslexia and Impulsivity/hyperactivity

Sr. no.	Variables	No. of subjects (N)	Correlation value (r)	Interpretation
1.	Dyslexia	154	0.514271061	Positive correlation
	Impulsivity/Hyperactivity			

Table 7.
There is a positive correlation between dyslexia and inattention/hyperactivity

Sr. no.	Variables	No. of subjects (N)	Correlation value (r)	Interpretation
1.	Dyslexia	154	0.71630541	High positive
	Inattention/Hyperactivity			

Table 8.
There is a positive correlation between dyslexia and attention deficit hyper disorder

Sr.no.	Variables	No. of subjects (N)	Correlation value (r)	Interpretation
1.	Dyslexia	154	0.415740125	Positive correlation
	ADHD			

SUGGESTIONS AND CONCLUSION

- Use High interest curriculum materials.
- Check the difficulty level of the reading material and text books to make sure that they are appropriate to the child's reading level. The level that is too easy leads to boredom and a level that is too difficult leads to frustration.
- Selects manipulable, hands on material, wherever necessary.
- Establish a solid, concrete experiential base for teaching abstract concepts.
- Demonstrates how new information relates to material already learnt.
- Introduce new vocabulary before beginning the lesson.
- Use visual aids to supplement oral and written information.
- Use Learning aids to structure learning and increase motivation.
- Seating the child in a place that is relatively free from distraction (for example, doors and windows) in a position where the teacher can easily intervene if the child is not attending.

DECLARATION

The study received research grant from the ICSSR-New Delhi and has no conflicts of interests.

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