



# Impact of Learning Disability on Behavioural Functioning of Children

Sufia Khatoon <sup>1</sup>, Dr. Sushma Pandey <sup>2</sup>

<sup>1</sup>Assistant Professor, Department of Psychology, National Post Graduate College, Barhalganj, Gorakhpur, U.P. India  
<sup>2</sup>Professor and Senior Fellow (ICSSR), Department of Psychology, D.D.U. Gorakhpur University Gorakhpur, U.P. India  
Email - <sup>1</sup>[sufiakhatoon55528@gmail.com](mailto:sufiakhatoon55528@gmail.com), <sup>2</sup>[pandey1806@gmail.com](mailto:pandey1806@gmail.com)

**Abstract:** The study analyzes the effect of learning disability on behavioural functioning in children. Learning disability (LD) is a neurodevelopmental disorder that affects the brain's ability to process information effectively. It can manifest in various forms, such as difficulties in reading, writing, and mathematics. However, the impact of LD extends beyond academic performance, significantly influencing the behavioural functioning of children. Employing a 2×2×3 factorial design, the study considered Two levels of Learning Disability (LD and Non-LD) × Gender (Male and Female) × Three Age groups (Children: 7-10 years; Pre-Adolescents: 11-13 years; Adolescents: 14-18 years). Stratified random sampling/Purposive sampling technique was used to select 120 participants from various schools of Gorakhpur city. The Diagnostic Test of Learning Disability (DTLD, Swarup & Mehta, 1993) and the Child Behaviour Questionnaire (CBQ, Sushma Pandey, 2016) were administered to assess learning disabilities and behavioral functioning, respectively. Univariate analysis was done for data analysis.

ANOVA results proved the significant impact of learning disability on children's behaviours. Specifically, Children with LD demonstrated lower levels of positive behaviours such as study behaviour, social interaction, and disciplinary behaviour as compared to their non-LD peers. Conversely, negative behaviours including aggressive behaviour, withdrawal, and distractibility were found more prevalent in children with LD. In other words, participants with LD exhibited diminished positive behaviours and more intense negative behaviours. However, the influence of age and gender on children's behaviour was found partially significant. Findings are discussed.

**Keywords:** Behavioural Functioning, Children, Learning Disability.

## 1. INTRODUCTION:

Learning in children is a dynamic process that forms the foundation for cognitive, emotional, and social development. From infancy, children explore their environment, acquire new skills, and make sense of the world through observation, imitation, and interaction. This innate drive to learn is fundamental to their growth and adaptation, shaping their ability to communicate, problem-solving, and navigate social interactions. However, learning disabilities can impede this journey, affecting academic performance, behaviour, and emotional well-being.

Learning disability is a neurodevelopmental disorder that impairs a child's ability to learn or use skills in listening, speaking, reading, writing, reasoning, and mathematics, due to dysfunctions in the central nervous system (CNS). It is not the result of any sensory impairment, intellectual disability, serious emotional disturbance, cultural differences, and insufficient or inappropriate instruction, however it may occur along with these conditions (APA,1995). According to the DSM-5, 'learning disability (LD) is a neurodevelopmental disorder typically diagnosed after children begin primary school. LD is biologically based and characterized by cognitive abnormalities, impairments in verbal and nonverbal information processing, and disruptions in processing abilities. These issues result in significant difficulties in acquiring and using skills related to listening, speaking, reading, writing, reasoning, and mathematics' (Diagnostic and Statistical Manual of Mental Disorders [DSM-5]; American Psychiatric Association, 2013; Goldstein, 2011; Heiman & Berger, 2008; Raghavan & Patel, 2005).



Learning disabilities are diverse and can manifest in various forms, impacting individuals' abilities to acquire, process, or express information. These forms are briefly described below:

**Dyslexia:** Children with dyslexia (reading disability) often struggle with spelling and decoding words, due to difficulties in phonological processing. Additionally, they may face challenges in recognizing words they've previously learned (Ehri & McCormick, 1998). Comprehending text can also be problematic for individuals with dyslexia (Gersten et al., 2001).

**Dyscalculia:** Children with dyscalculia may struggle with understanding mathematical concepts and computation, including basic math problems. Difficulties in spatial orientation, sequencing, and understanding abstract concepts like time and direction are also part of math disabilities. In some cases, math related disabilities may be connected to reading disabilities, while in others, they are more closely tied to problems with working memory and problem-solving skills (Swanson, 2015).

**Dysgraphia:** It involves difficulties in handwriting, forming letters or words, and writing within defined spaces. Challenges in spelling, semantic memory, morphological awareness, grammatical structures, organizing information, expressing thoughts on paper, and working memory are also associated with writing-related learning disabilities (Berninger, 2009). Some children may have overlapping learning disabilities of more than one, while, some may have a single disability (Lakshmi et al., 2020). The occurrence of overlapping learning disabilities in children is comparatively higher than a single learning disability (Moll K. et al., 2014).

Learning disability significantly impact children by causing difficulties in reading, writing, math, and understanding instructions, which can lead to frustration, low self-esteem, and avoidance of academic tasks, often resulting in behavioural issues such as misbehaving in class, withdrawing from social activities, or exhibiting signs of anxiety or depression. The consequences of learning disabilities extend beyond the classroom, affecting children's overall development and functioning. In social settings, they may struggle to communicate effectively, make friends, or participate in group activities, leading to feelings of isolation and loneliness. Furthermore, ongoing difficulties in learning can diminish children's confidence and motivation, negatively impacting their future academic and career opportunities.

Such disability profoundly impacts children's behaviour, often causing inattention, task avoidance, and disruptive behaviours, which impede their academic progress. A longitudinal study by Farmer and colleagues (2015) indicated that learning disabilities can affect peer relationships, leading to social difficulties, peer rejection, and negative effects on self-esteem. Baker et al. (2003) explored that parental stress levels may increase due to the challenges associated with supporting a child with learning disabilities, which, in turn, can influence the child's behavioural functioning.

It is noteworthy that the nature and extent of emotional and behavioural problems varied depending on the specific type of learning disability observed in the children. In the beginning of a child's school journey, difficulties may arise, leading to reactive behaviours like avoidance, depression, aggression, and disobedience. Concurrently, parents may respond with non-acceptance, depression, and guilt, laying the groundwork for potential emotional and behavioural challenges for the child in the future. (Khatoon S. & Pandey S., 2022).

Recent research on learning disabilities in children has explored potential gender differences in prevalence, manifestation, and educational impact. Smith et al. (2021) found that boys exhibited a higher prevalence of reading disabilities, particularly dyslexia whereas, girls were more likely to display internalizing behaviours associated with learning challenges, such as anxiety and withdrawal (Jones et al., 2020). Smith's longitudinal study (2022) delved into the educational impact, revealing that both boys and girls with learning disabilities faced challenges in academic achievement but demonstrated unique coping mechanisms.

Moreover, studies investigating learning disabilities in children have highlighted the significance of age-related differences in prevalence, diagnosis, and intervention. A longitudinal study by Johnson et al. (2019) explored the developmental trajectory of learning disabilities and found variations in prevalence across different age groups. The study revealed an increase in the identification of learning disabilities during the early elementary school years, with a subsequent decline in diagnoses during adolescence.

A close perusal of review of studies revealed the dynamic nature of LD, its multiple causes and impacts. However, research based on behavioural functioning of LD children and non-LD children in Indian context, is less investigated issue. Against this backdrop, this study was conducted with following objectives:

## 2. Objectives:

Present piece of research was conducted with following specific objectives:

- To examine the effect of learning disability on behavioural functioning of students.



- To examine the role of age and gender in behavioural functioning of students.

### 3. Hypotheses:

On the basis of above objectives, following hypotheses were formulated for the investigation:

- Earlier studies have consistently proved association between learning disabilities and internalizing and externalizing behavioural problems (Bender & Smith, 1990; Eliason & Richman, 1988; Richards Samuels, Turnure & Ysseldyke, 1990). Therefore, it was hypothesized that behavioural functioning of students would be adversely influenced by learning disability (LD). More specifically, learning disabled participants would show more behavioural problems as compared to their non-disabled counterparts.
- Past studies have explored potential gender differences in behavioural processes of children (Brown & Johnson, 2019; Pandey, 2018 & Smith et al., 2021). Therefore, it was hypothesized that male and female would also differ on their behavioural functioning.
- Prior studies proved the developmental pattern in behavioural functioning of students (Johnson et al., 2019; Smith & Brown, 2020; Taylor et al., 2021). Thus, it was hypothesized that a developmental pattern in students' behaviour would be found with increasing age. More specifically, adolescents would show better behavioural functioning in comparison to children and pre-adolescents.
- Some studies suggest that learning disabilities, gender, and age interact, profoundly impacting children's education, emotions, and behaviors (McConaughy & Ritter, 1985; Devine et al., 2013). Therefore, it was hypothesized that a significant interaction effect of learning disabilities, gender, and age on children's behaviours would be found.

### 4. METHOD :

#### Design:

A 2×2×3 factorial design with Two levels of Learning Disability (LD and Non-LD) × Gender (Male and Female) × Age groups (Children, 8-10 yrs., Pre-Adolescents yrs., 11-13, and Adolescents, 14-16 yrs.) was used in present study. Therefore, factorial analysis of variance (ANOVA) would be exercised.

#### Participants:

A total of 120 participants, age ranged 8-16 years of 3<sup>rd</sup> to 12<sup>th</sup> standards, enrolled in different schools of Gorakhpur city, participated in the present study and stratified random/purposive sampling technique was used for sample selection. On the basis of scores obtained on Diagnostic Test of Learning Disability (DTLD), participants were divided into learning disabled (LD) and non-disabled (non-LD) groups. Both groups were matched in accordance with age, grade and gender.

#### Measures:

##### Raven's Standard Progressive Matrices (SPM)

Raven's Standard Progressive Matrices was used to assess abstract reasoning and intelligence level of participants. This scale consists of 60 problems divided into five sets (A, B, C, D, & E) of 12 matrices. Each item contains a figure with a missing piece and participant tries to see the relation between the matrices.

##### Diagnostic Test of Learning Disability (DTLD)

The DTLD tool by Swarup and Mehta (1991) is constructed to identify learning disabled (LD) children. This test consists of 100 items which diagnoses learning disability in 10 areas such as 'Eye-Hand Coordination (EHC)', 'Figure-Ground Perception (FG)', 'Figure Constancy (FC)', 'Position-in-space (PS)', 'Spatial Relations (SR)', 'Auditory Perception (AP)', 'Memory (M)', 'Cognitive Abilities (CA)', 'Receptive Language (RL)', 'Expressive Language (EL)'.

##### Child Behavior Scale (CBS)

To assess the multiple behaviours of children, a modified version of CBS (Pandey, 2018) was used. This scale includes many items based on different behaviour patterns related to positive and negative behaviours such as Social Interaction, Study Behaviour, Disciplinary Behaviour, Aggressive Behaviour, Withdrawal and distractibility. This scale is pilot tested and coefficient alpha has been determined ( $r = .89$ ).



**Procedure:** Firstly, a number of schools in Gorakhpur city were approached and permission was taken from the appropriate authority. Students were explained about purpose of the study and they were given a booklet containing Personal Data Sheet (PDS), Raven Progressive Matrices (SPM), Diagnostic Test of Learning Disability (DTLD), and Child behaviour Scale (CBS). Participants were instructed to diligently respond on each measure one by one. After collecting data, they were thanked for cooperation.

**Analysis Plan:** Data scoring was executed in accordance with established protocols delineated in the respective manuals. Subsequently, statistical analyses were performed using SPSS software, version 21.

**5. RESULTS:**

In order to ascertain the influence of learning disability, gender and age on behavioural functioning (both positive and negative behaviours) of children, responses were obtained on various measures. Scores were treated statistically in terms of Mean, SD and factorial analysis of variance (ANOVA). Findings for positive and negative domains of behaviours are reported separately in tables and figures in following section:

**I. Positive Behaviours:** In order to determine the effect of learning disability, gender and age on children’s positive behaviours i.e. social interaction, study behaviour, and disciplinary behaviour; analysis was done in terms of Means, S.D. and analysis of variance (ANOVA). Results are displayed in tables and figures and reported below:

- **Social Interaction as a function of Learning Disability, Gender and Age**

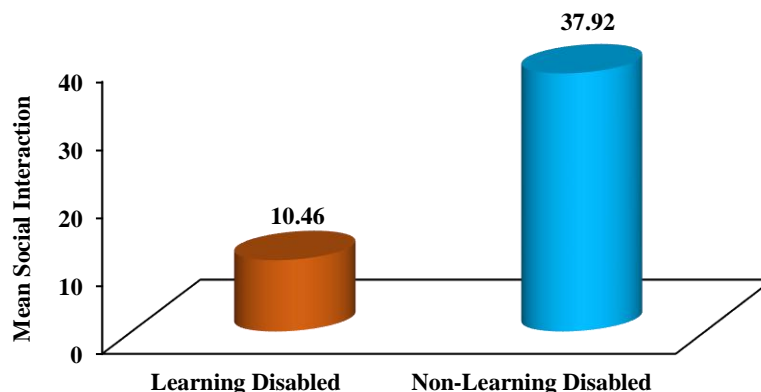
Table-1 displays Mean, SD and significant F-values of social interaction scores. Results revealed that the extent of social interaction differed across the level of LD, gender and age.

*Table 1: Mean, S.D. and Significant F-Values of Social Interaction by Learning Disability, Gender and Age*

Age ↓		Male		Female		F-Value
		LD	Non-LD	LD	Non-LD	
Children	Mean	16.00	35.30	17.20	39.50	A=LD & Non-LD B=Gender C=Age  A=561.182*** A×C=8.85**
	SD	2.867	7.573	3.048	4.035	
Pre-Adolescents	Mean	12.40	40.30	15.10	42.40	
	SD	3.098	4.373	9.327	3.098	
Adolescents	Mean	16.50	38.20	17.00	31.80	
	SD	3.808	5.432	4.000	6.339	

N=120, \*\* = P < .01, \*\*\* = P < .001

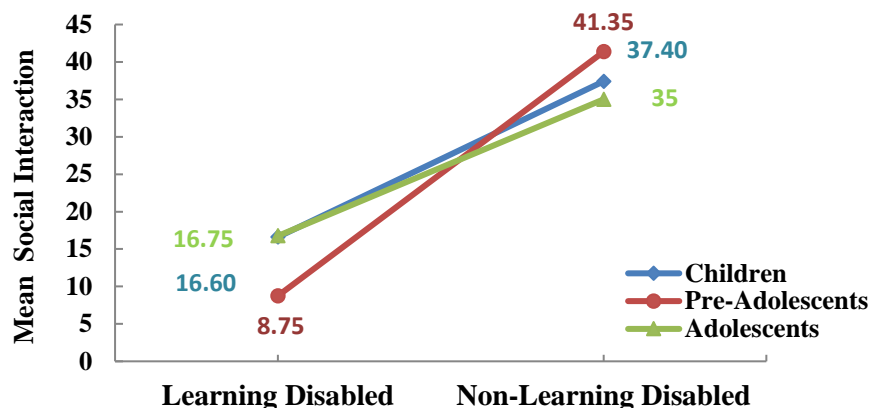
In order to determine the significant impact of learning disability, gender and age on social interaction, ANOVA analysis was done. As results (Table-1) indicate that social interaction was significantly influenced by learning disability [F = (1, 108) 561.182, P<.001].



**Figure.1: Social Interaction as a function of Learning Disability**



Significant main effect of LD indicates that participants of LD group have shown far poor social interaction (M=10.46) than those of non-LD group of participants (M=37.92). (Figure-1). Interaction effect was also found significant.



**Figure. 2: Social Interaction as a Function of Interaction of Learning Disability and Age**

The significant interaction effect of learning disability  $\times$  age [ $F(1,108) = 8.853, P < .001$ ] evinced that social interaction was jointly influenced by LD and age. In case of LD group, pre-adolescents scored lower as compared to adolescents and children, though difference between adolescents and children was found very little. Contrary to this, in case of non-LD group pre-adolescents scored higher in comparison with adolescents and children (Figure.2).

- Study Behaviour as a function of Learning Disability, Gender and Age**

Table-2 displays Mean, SD and significant F-values of study behaviour scores. Results revealed that the extent of study behaviour differed across the level of LD, gender and age.

**Table 2: Mean, S.D. and Significant F-Values of Study Behaviour by Learning Disability, Gender and Age**

Age ↓		Male		Female		F-Value
		LD	Non-LD	LD	Non-LD	
Children	Mean	18.70	37.60	21.70	37.00	A=LD & Non-LD B=Gender C=Age A=388.21*** C=4.513** A $\times$ C=4.57***
	SD	3.653	4.377	5.458	4.922	
Pre-Adolescents	Mean	16.60	43.80	17.30	39.20	
	SD	5.317	2.616	11.605	4.185	
Adolescents	Mean	14.20	34.90	17.90	35.90	
	SD	3.190	6.574	3.843	6.437	

N=120, \*\* =  $P < .01$ , \*\*\* =  $P < .001$

Furthermore, ANOVA analysis was computed to determine the influence of LD, gender and age on study behaviour. The significant main effect of learning disability on study behaviour ( $F(1, 108) = 388.21, p < .001$ ) presents a strong difference between children with LD and Non-LD.

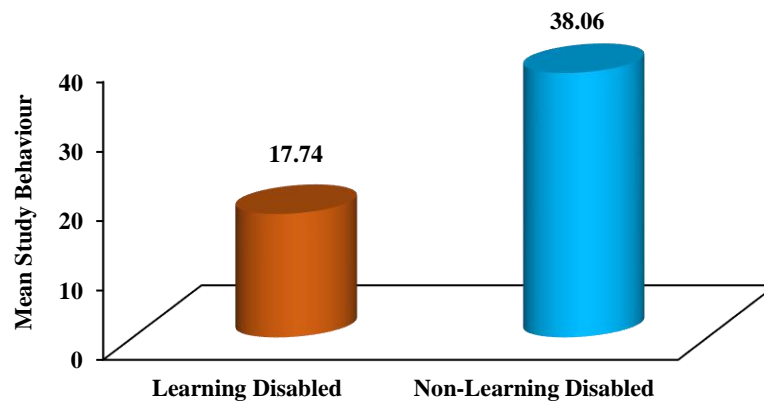


Figure 3: Study Behaviour as a function of Learning Disability

Significant main effect of LD indicates that participants of LD group have shown low study behaviour ( $M = 17.74$ ) than those of non-LD group of participants ( $M = 38.06$ ). Further, main effect of age was also found significant (Figure-4).

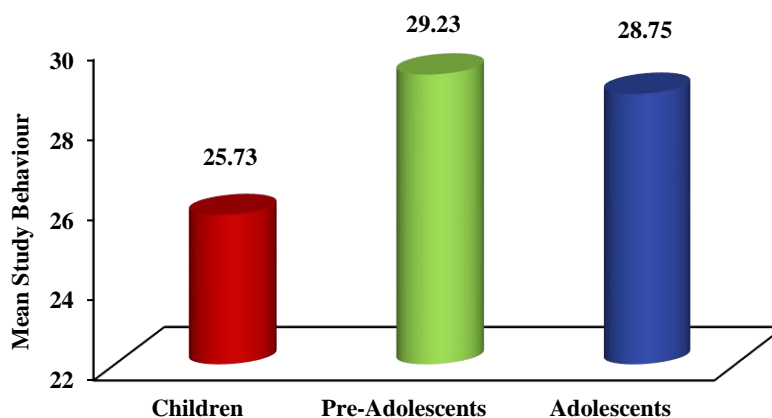


Figure 4: Study Behaviour as a function of Age

As results (Table-2 & Figure-4) indicate, that children ( $M=25.73$ ) showed very poor study behaviour as compared to adolescents ( $M=28.75$ ) and pre-adolescents ( $M=29.23$ ). The interaction effect was also found significant (Table-2).

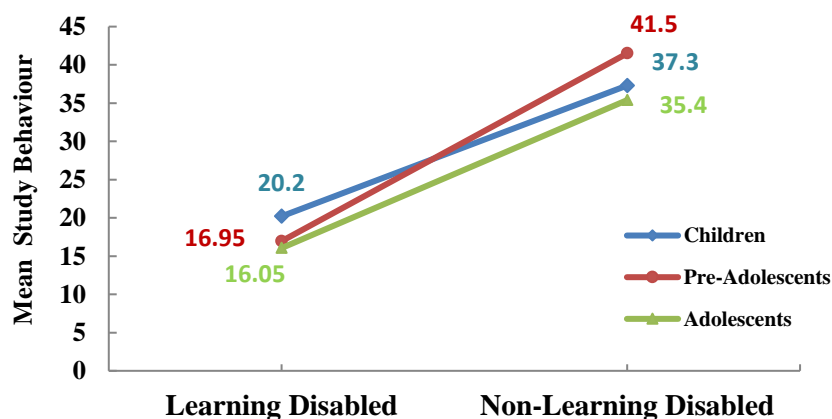


Figure 5: Study Behaviour as a Function of Interaction of Learning Disability and Age



Moreover, the significant interaction effect of learning disability and age [ $F = (1, 108) 4.570, P < .001$ ] on study behaviour (Figure.5) denotes that although in learning disabled group, children scored higher than pre-adolescents and adolescents yet the difference was not very high. Contrary to this, In Non-LD group, pre-adolescents exhibited superior study behaviour than children and adolescents.

- **Disciplinary Behaviour as a function of Learning Disability, Gender and Age.**

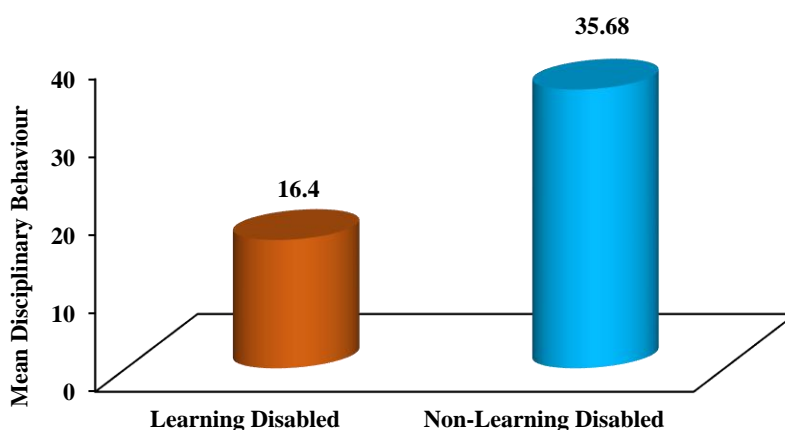
Table-3 displays Mean, SD and significant F-values of disciplinary behaviour. Results revealed that the extent of disciplinary behaviour differed across the level of LD, gender and age.

**Table 3: Mean, S.D. and Significant F-Values of Disciplinary Behaviour by Learning Disability, Gender and Age**

Age ↓		Male		Female		F-Value A=LD & Non-LD B=Gender C=Age
		LD	Non-LD	LD	Non-LD	
Children	Mean	19.10	31.00	18.60	35.90	A=405.28*** A×C=27.65***
	SD	3.604	5.121	3.534	3.985	
Pre-Adolescents	Mean	11.70	42.40	14.20	42.20	
	SD	4.165	3.921	7.843	3.293	
Adolescents	Mean	16.40	33.20	18.40	29.40	
	SD	4.427	6.052	6.222	7.919	

N=120, \*\*\* = P < .001

Furthermore, ANOVA analysis was done to determine the influence of LD, gender and age on disciplinary behaviour. It is apparent from Table-3, disciplinary behaviour was significantly influenced by learning disability [ $F = (1, 108) 405.283, P < .001$ ].



**Figure 6: Disciplinary Behaviour as a function of Learning Disability**

Figure-6 indicates that LD group of participants have scored lower on disciplinary behaviour (M=16.4) as compared to their non-LD participants (M=35.68). The interaction effect of LD and age was also found significant (Figure-7).

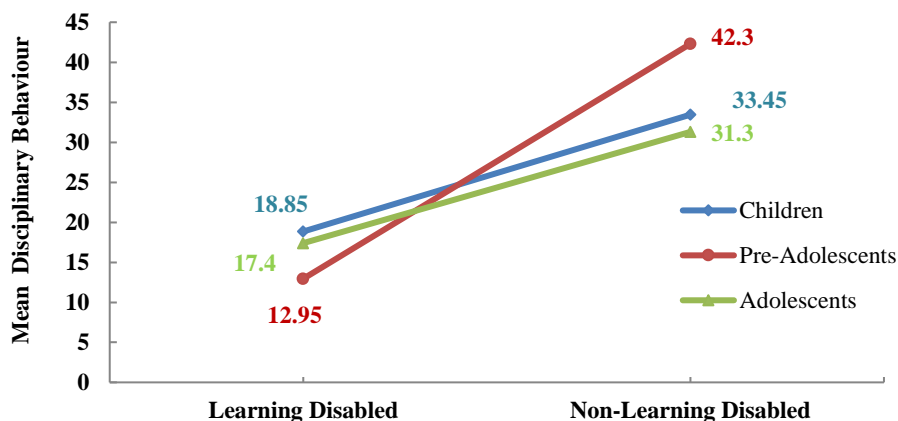


Figure 7: Disciplinary Behaviour as a Function of Interaction of Learning Disability and Age

Again, the significant interaction effect of LD × age [ $F = (1, 108) 27.657, P < .001$ ] denotes that in case of LD group, children scored little better in comparison to pre-adolescents, and adolescents yet the difference was not very high. Whereas, in non-disabled group of participants pre-adolescents scored higher in comparison to children and adolescents (Figure-7).

Results thus, proved the adverse impact of learning disability on positive behaviours in children.

**II. Negative Behaviours:** In order to determine the effect of learning disability, gender and age on children’s negative behaviours i.e. aggressive behaviour, withdrawal, and distractibility; analysis was done in terms of Mean, S.D. and analysis of variance (ANOVA). Results are displayed in tables and figures and reported below:

• **Aggressive Behaviour as a function of Learning Disability, Gender and Age**

Table-4 shows Mean, SD and significant F-values of aggressive behaviour. Results revealed that the extent of aggressive behaviour differed across the level of LD, gender and age.

Table 4: Mean, S.D. and Significant F-Values of Aggressive Behaviour by Learning Disability, Gender and Age

Age ↓	Male		Female		F-Value
	LD	Non-LD	LD	Non-LD	
Children	Mean	36.20	17.90	35.80	20.60
	SD	3.011	5.685	3.360	4.904
Pre-Adolescents	Mean	39.90	9.70	38.70	13.30
	SD	5.685	2.983	7.349	6.897
Adolescents	Mean	38.20	23.00	38.10	19.40
	SD	4.709	4.967	2.183	3.471

N=120, \*\*\* = P < .001

Further, ANOVA analysis was done to determine the impact of learning disability, gender and age on aggressive behaviour which revealed that the aggressive behaviour was significantly affected by learning disability and age. The main effect of learning disability [ $F = (1, 108) 534.258, P < .001$ ] was found significant (Table-4 & Figure-8).



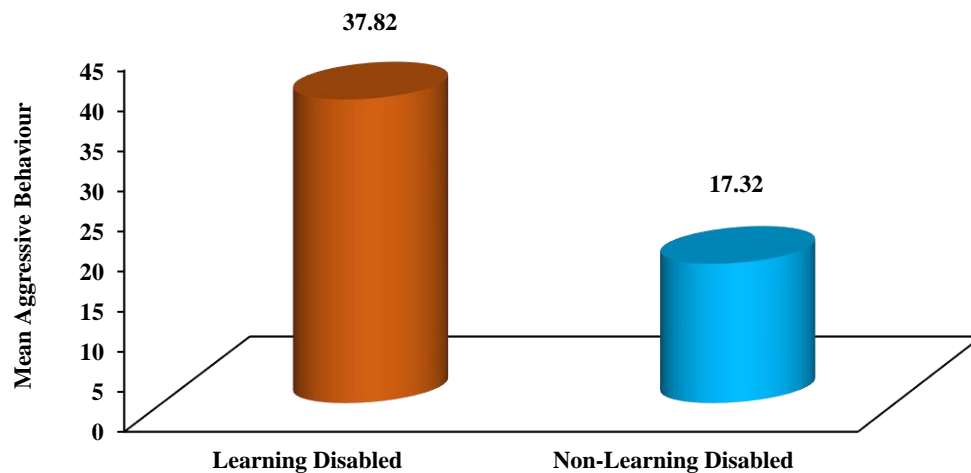


Figure 8: Aggressive Behaviour as a function of Learning Disability

Figure-8 displays that the learning-disabled participants displayed higher ( $M=37.82$ ) on aggressive behaviour than non-LD participants ( $M=17.32$ ). Again, the main effect of age on aggressive behaviour was also found significant [ $F = (1, 108) 7.749, P<.001$ ], (Figure-9).

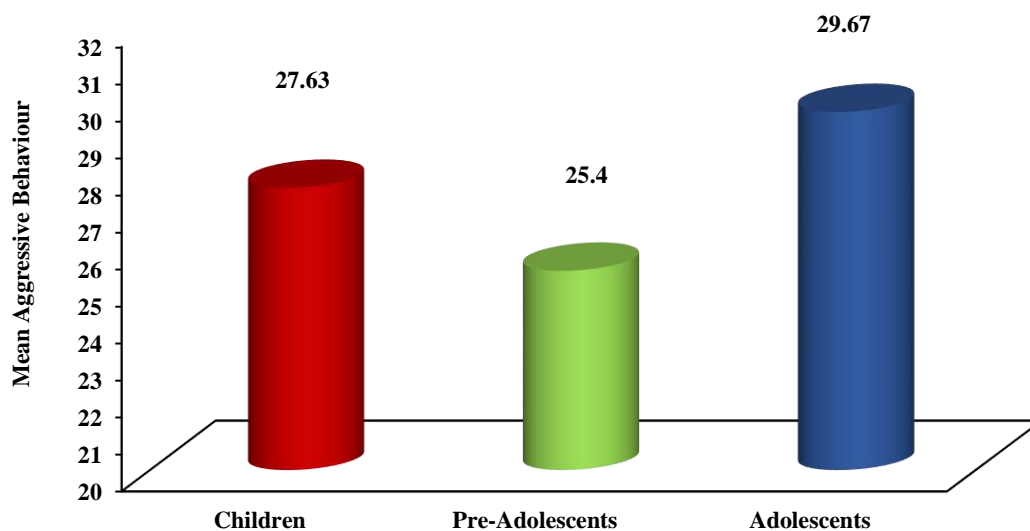
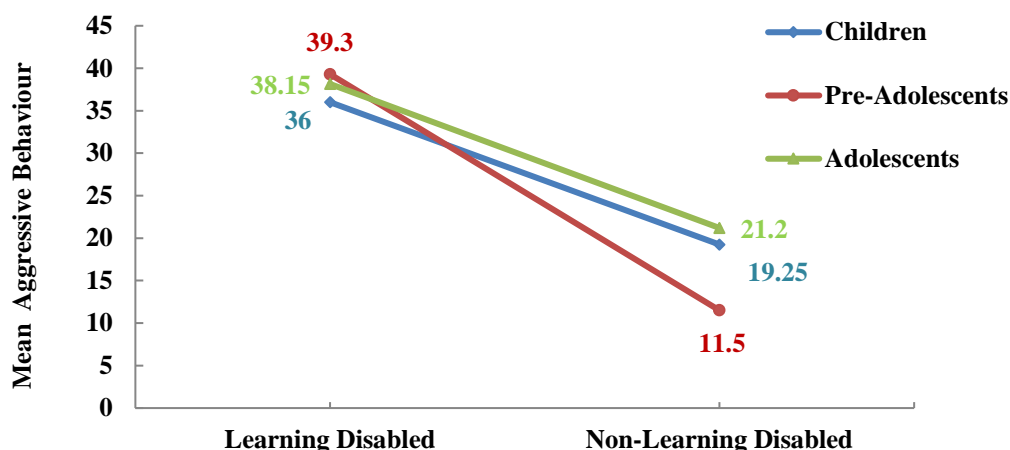


Figure 9: Aggressive Behaviour as a function of Age

As, Figure-9 indicates, adolescents have scored higher ( $M=29.67$ ) as compared to pre-adolescents ( $M=25.4$ ) and children (27.63) on aggressive behaviour. The interaction effect of LD and age on aggressive behaviour was also found significant (Table-4 & Figure-10).



**Figure 10: Aggressive Behaviour as a Function of Interaction of Learning Disability and Age**

The significant interaction effect of learning disability  $\times$  age [ $F = (1, 108) 16.941, P < .001$ ] evinced that the aggressive behaviour was jointly influenced by LD and age. In case of LD group, adolescents have scored higher on aggressive behaviour in comparison to pre-adolescents and children. Conversely, in non-LD group, adolescents have displayed minimum aggressive behaviour than pre-adolescents and children.

• **Withdrawal as a function of Learning Disability, Gender and Age.**

Table-5 displays Mean, SD and significant F-value of withdrawal scores. Results revealed that the extent of withdrawal differed across the level of LD, gender and age.

**Table 5: Mean, S.D. and Significant F-Values of Withdrawal by Learning Disability, Gender and Age**

Age ↓		Male		Female		F-Value A=LD & Non-LD B=Gender C=Age
		LD	Non-LD	LD	Non-LD	
Children	Mean	39.50	16.50	38.20	15.30	A=879.304***
	SD	3.894	4.720	2.936	4.165	
Pre-Adolescents	Mean	43.20	13.10	39.80	10.30	
	SD	3.293	2.726	10.706	4.620	
Adolescents	Mean	40.40	17.40	41.10	11.00	
	SD	3.565	5.016	5.065	2.211	

N=120, \*\*\* =  $P < .001$

Furthermore, analysis of variance (ANOVA) was computed to determine the influence of learning disability, gender and age on withdrawal. Results displayed in Table-5 revealed that withdrawal was significantly influenced by learning disability [ $F = (1, 108) 879.304, P < .001$ ].

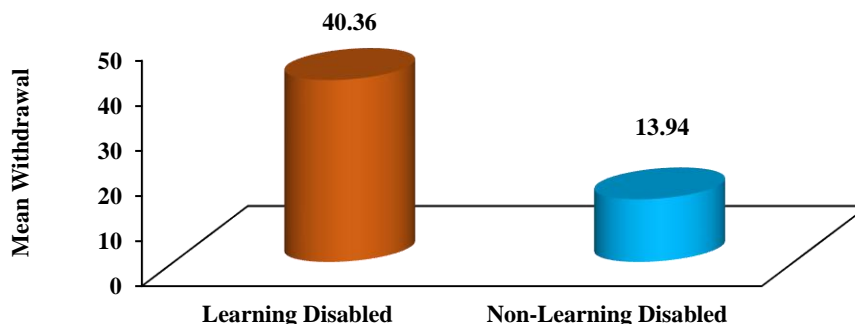


Figure 11: Withdrawal as a function of Learning Disability

Figure-11, depicts that LD participants have shown greater withdrawal behaviour (M=40.36) than those of non-learning-disabled participants (M=13.94).

- **Distractibility as a function of Learning Disability, Gender and Age.**

Table-6 displays Mean, SD and significant F-values of distractibility scores. Results revealed that the extent of distractibility differed across the level of LD, gender and age.

Table 6: Mean, S.D. and Significant F-Values of Distractibility by Learning Disability, Gender and Age

Age ↓		Male		Female		F-Value (A=LD & non-LD B=Gender C=Age)
		LD	Non-LD	LD	Non-LD	
Children	Mean	40.40	19.90	41.30	13.90	A=1258.667*** B=10.741*** A×C=10.458***
	SD	2.716	5.666	3.561	3.929	
Pre-Adolescents	Mean	44.70	12.60	37.80	10.50	
	SD	2.908	4.624	9.875	2.593	
Adolescents	Mean	42.50	9.20	41.20	8.60	
	SD	4.007	2.616	2.044	3.098	

N=120, \*\*\* = P < .00

Further, in order to determine the significant influence of LD, gender and age on distractibility, ANOVA analysis was computed. As results revealed that distractibility was significantly influenced by learning disability [F = (1, 108) 1258.667, P<.001].

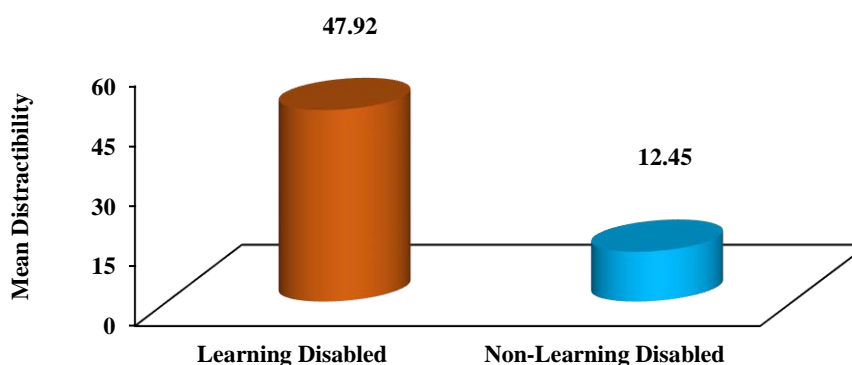
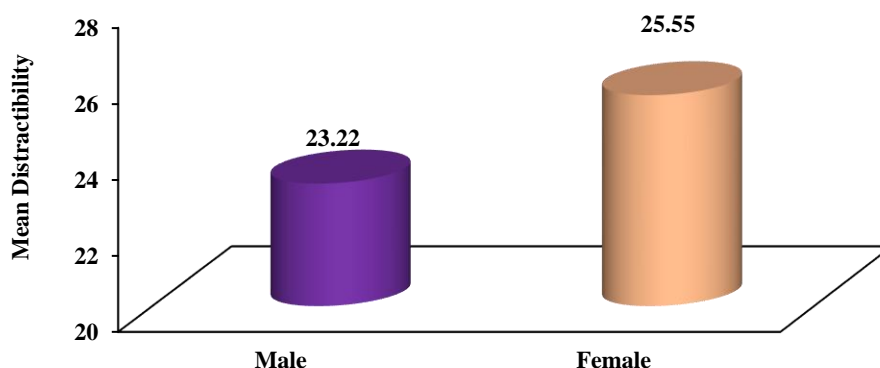


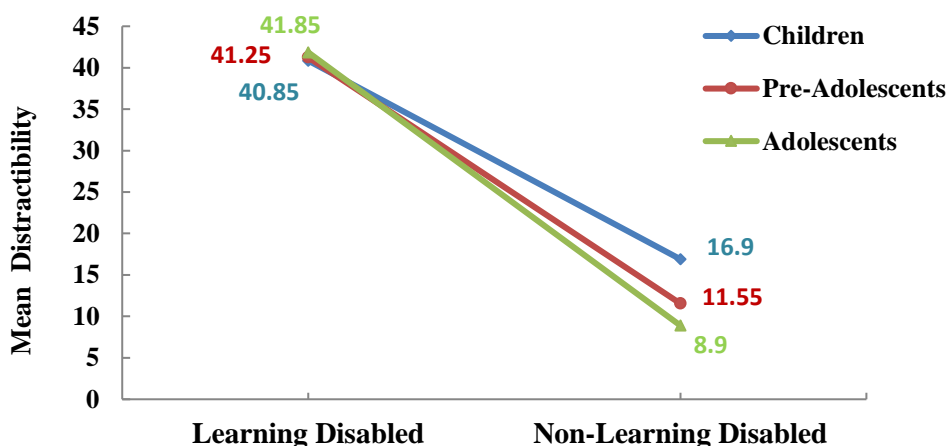
Figure 12: Distractibility as a function of Learning Disability

Figure-12 indicates that participants of LD group have scored higher on distractibility (M=47.92) than those of non-LD counterparts (M=12.45). Main effect of gender was also found significant.



**Figure 13: Distractibility as a function of Gender**

The significant main effect of gender [ $F = (1, 108) 10.741, P < .001$ ] indicates that in comparison with males ( $M=23.22$ ), females have shown greater distractibility ( $M=25.55$ ), (Figure-13).



**Figure 14: Distractibility as a Function of Interaction of Learning Disability and Age**

The significant interaction effect of LD and age on distractibility [ $F = (1, 108) 10.458, P < .001$ ] evinced that distractibility was jointly influenced by LD and age. Figure-16 displays that in case of LD group, adolescents have shown greater distractibility in comparison to pre-adolescents and children. Contrary to this, in case of non-LD group, adolescents have scored lower than pre-adolescents and children (Table-6 & Figure-14).

ANOVA results thus, indicate that learning disability (LD) has a detrimental impact on the behavioural functioning of students. Additionally, the role of gender and age was found partially significant.

## 6. Discussion:

Present study aimed to investigate the impact of learning disability, gender and age on the behavioural functioning of children. The findings strongly supported the hypothesis that learning disability adversely impacted behaviours, as participants with learning disability exhibited more behavioural problems and diminished positive behaviours as compared to their non-disabled counterparts. Present results indicated differences between male and female students on various domain of behaviour. Additionally, the study revealed a developmental pattern in behavioural functioning. As adolescents were found superior on behavioural functioning than children and pre-adolescents. Moreover, significant



interaction effect of learning disability, gender, and age revealed joint impacts on students' behaviours. Results are discussed in relation to existing empirical and theoretical evidences.

More specifically, ANOVA results indicate that children with LD exhibited lower positive behaviours in several areas compared to their non-LD counterparts. Specifically, they demonstrated poor Social Interactions, low level of Study Behaviours and Disciplinary behaviours as compared to non-LD counterparts. Contrary to this, Negative behaviours, including aggressive Behaviour, Withdrawal, and Distractibility, were found more prevalent among LD children compared to their non-LD counterparts. Specifically, aggressive behaviour was significantly more common in children with LD. Additionally, withdrawal and distractibility were observed at higher rates in LD children compared to non-LD counterparts.

Studies conducted worldwide also confirmed findings of the present research. A number of studies has proved that learning disabilities diminish positive behaviours and intensify negative behaviours (Baker et al., 2003). These findings align with previous studies by McConaughy and Ritter (1986), and Epstein et al (1993), which noted that LD children often exhibit fewer social interactions, lower academic performance, and various behavioral issues compared to their peers without learning disability. Research examining behavioural problems indicates that children with LD exhibit lower levels of adaptability and flexibility compared to their peers without LD (Pihl & McLarnon, 1984). Additionally, they tend to display decreased sociability (Rosenberg & Gaier, 1977) and are less likely to be popular among their peers (McConaughy & Ritter, 1986). These investigations have included numerous teacher ratings, which consistently indicate that students with LD are less focused on tasks and exhibit more problematic behaviors than non-disabled students in mainstream classes. Epstein et al (1986) highlighted that parent of boys with learning disability often observed that their children had limited social interactions, fewer friendships, decreased involvement in extracurricular activities, and poorer academic performance compared to boys without learning disability. Over recent years, researchers have been investigating the classroom behaviour of students with LD and have identified significant deficits in this area (Bender, 1987; McKinney & Feagans, 1983).

In a study, Bryan, Pearl, and Fallon (1989) have highlighted that although some students with LD may find it relatively easy to become part of social groups, these groups tend to be more prone to behavioural problems and generally demonstrate a lower level of pro-social behaviours. These findings suggest the need to evaluate emotional and behavioural issues in children with LD to gain a clearer understanding of their unique needs. Furthermore, such evaluations are important for designing intervention programs that are specifically designed to address the particular challenges encounter by these children.

McConaughy et al (1994) reported that aggressive behaviour was the best predictor of learning disability. Other significant predictors included delinquent behaviour, social problems, and withdrawal. Additionally, they suggested that LD children experience a great deal of behavioural problems in addition to their learning difficulties. In a recent study, Khatoon and Pandey (2022), discovered that children with LD tend to show various behavioural problems. These include feeling frustrated, behaving disruptively, having trouble in making good decisions, struggling to control impulses, finding it hard to reason, and having difficulty forming meaningful relationships with others. In addition, they pointed out other behavioural problems viz. restlessness, aggression, excess consumption of activity, non-interaction, hyperactivity, delinquency, phobia, and sleep disturbance in. Thus, present findings are in close consonance of other studies.

This study also identified notable gender differences in the behavioural functioning of students. Notably, boys, (LD & Non-LD), demonstrated elevated levels of aggression compared to girls. Conversely, girls with LD tended to exhibit higher levels of distractibility. Moreover, a developmental pattern emerged, indicating improved behaviour with increasing age. Particularly, adolescents displayed notably better behavioural functioning, especially in terms of positive behaviours, compared to pre-adolescents and children.

Many researches have indicated that boys with learning disabilities (LD) experienced significantly more problems in social competence and behaviour than would be expected for normal boys of the same age. Parents of LD boys reported significantly lower levels of social competence and a higher number of behavioural problems compared to LD and Non-LD boys aged 6-11 years. According to parental reports, LD boys exhibited fewer social contacts with friends and organizations, participated less in activities, and demonstrated lower levels of school performance (McConaughy, & Ritter, 1985). The DSM-5 outlines a prevalence rate of 5% to 15% for specific learning disorders encompassing reading, writing, and mathematics among school-age children, with an estimated rate of about 4% among adults. In a study Johnson et al. (2019) found that the prevalence of learning disability increases during early elementary years and declines in adolescence. Similar results have been identified in our study.



## 7. CONCLUSION:

Findings of the present research have proved the behavioural consequences of learning disabilities (LD) in children, showing that LD students exhibited lower positive behaviours (social interaction, study behaviour and disciplinary behaviour) and higher negative behaviours (aggression, withdrawal, and distractibility) compared to their non-LD peers. The observed gender and age differences highlight the complex interconnection of factors influencing behavioural outcomes in children with LD. Boys exhibited higher levels of aggression, while girls were more prone to distractibility. Moreover, LD, gender and age jointly impacted students' behaviours.

These findings have important implications at multiple levels. Since, understanding the behavioural consequences of learning disabilities is crucial for developing targeted interventions and support strategies to address the unique needs of children with LD. By recognizing the challenges, they face in academic, social, and disciplinary domains; educators, parents, and practitioners can implement effective interventions to promote positive outcomes for children with LD. Future research should explore the underlying mechanisms and factors contributing to these behavioural differences, as well as the effectiveness of intervention strategies in reducing negative behaviours and fostering positive development in children with LD.

There are some limitations of the study. Firstly, to generalize the findings, a larger sample size is needed to examine the behavioural functioning of children in general and children with LD in particular. Secondly, the researcher should use a mixed-method approach to gain deeper insights into the findings.

## REFERENCES:

1. American Psychiatric Association (1995). Diagnostic and Statistical Manual of Mental Disorders IV. (DSM IV). Washington D.C.
2. American Psychiatric Association (2013). Diagnostic and Statistical Manual of Mental Disorders. 5th ed, Washington, DC: American Psychiatric Association.
3. Baker, S., Gersten, R., & Graham, S. (2003). Teaching expressive writing to students with learning disabilities: Research-based applications and examples. *Journal of learning disabilities, 36*(2), 109-123.
4. Bender, W. N. (1987). Correlates of classroom behavior problems among learning disabled and nondisabled children in mainstream classes. *Learning Disability Quarterly, 10*(4), 317-324.
5. Berninger, V. W. (2009). Highlights of programmatic, interdisciplinary research on writing. *Learning disabilities research & practice, 24*(2), 69-80.
6. Bryan, T., Pearl, R., & Fallon, P. (1989). Conformity to peer pressure by students with learning disabilities: A replication. *Journal of learning Disabilities, 22*(7), 458-459.
7. Ehri, L. C., & McCormick, S. (1998). Phases of word learning: Implications for instruction with delayed and disabled readers. *Reading & Writing Quarterly: Overcoming Learning Difficulties, 14*(2), 135-163.
8. Epstein, M. H., Polloway, E. A., Foley, R. M., & Patton, J. R. (1993). Homework: A Comparison of Teachers' and Parents' Perceptions of the Problems Experienced by Students Identified as Having Behavioral Disorders, Learning Disabilities, or Mo Disabilities. *Remedial and Special Education, 14*(5), 40-50.
9. Farmer, T., Wike, T. L., Alexander, Q. R., Rodkin, P. C., & Mehtaji, M. (2015). Students with disabilities and involvement in peer victimization: Theory, research, and considerations for the future. *Remedial and Special Education, 36*(5), 263-274.
10. Gersten, R., Fuchs, L. S., Williams, J. P., & Baker, S. (2001). Teaching reading comprehension strategies to students with learning disabilities: A review of research. *Review of educational research, 71*(2), 279-320.
11. Goldstein, S. (2011). Learning disabilities in childhood. In S. Goldstein, J. A. Naglieri, & M. DeVries (Eds.), *Learning and attention disorders in adolescence and adulthood: Assessment and treatment* (2nd ed., pp. 31-58).
12. Heiman, T., & Berger, O. (2008). Parents of children with Asperger syndrome or with learning disabilities: Family environment and social support. *Research in developmental disabilities, 29*(4), 289-300.
13. Johnson, K. R., Blaskowitz, M., & Mahoney, W. J. (2019). Occupational therapy practice with adults with intellectual disability: what more can we do?. *The Open Journal of Occupational Therapy, 7*(2), 12.
14. Jones, S. A., & Finch, M. (2020). A group intervention incorporating mindfulness-informed techniques and relaxation strategies for individuals with learning disabilities. *British Journal of Learning Disabilities, 48*(3), 175-189.
15. Khatoon, S., & Pandey, S. (2022). Learning Disabilities and its Behavioural Consequences: An Analytical Review. *International Journal of Indian Psychology, 10*(3).



16. Lakshmi, J., Sivakumar, T., Angothu, H., Jayarajan, D., & Kishore, M. T. (2020). Book review: precious souls: a journey into the inspiring lives of special children and their families. *Indian Journal of Psychological Medicine*, 44(6), 623-624.
17. McConaughy, S. H., & Ritter, D. R. (1986). Social competence and behavioral problems of learning-disabled boys aged 6-11. *Journal of learning disabilities*, 19(1), 39-45.
18. McConaughy, S. H., Mattison, R. E., & Peterson, R. L. (1994). Behavioral/emotional problems of children with serious emotional disturbances and learning disabilities. *School Psychology Review*, 23(1), 81-98.
19. McKinney, J. D., & Feagans, L. (1983). Adaptive classroom behavior of learning-disabled students. *Journal of learning Disabilities*, 16(6), 360-367.
20. Moll, K., Kunze, S., Neuhoff, N., Bruder, J., & Schulte-Körne, G. (2014). Specific learning disorder: Prevalence and gender differences. *PLoS one*, 9(7), e103537.
21. Pihl, R. O., & McLarnon, L. D. (1984). Learning disabled children as adolescents. *Journal of Learning Disabilities*, 17(2), 96-100.
22. Raghavan, R., & Patel, P. (2005). *Learning disabilities and mental health: A nursing perspective*. Blackwell Publications.
23. Rosenberg, B. S., & Gaier, E. L. (1977). The self-concept of the adolescent with learning disabilities. *Adolescence*, 12(48), 489.
24. Smith, E., Sumner, P., Hedge, C., & Powell, G. (2021). Smart speaker devices can improve speech intelligibility in adults with intellectual disability. *International journal of language & communication disorders*, 56(3), 583-593.
25. Smith, J. E. (2022). Creative self-efficacy: An essential transition skill for students with learning disabilities. *Intervention in School and Clinic*, 57(4), 256-261.
26. Swanson, H. L. (2015). Intelligence, working memory, and learning disabilities. *Cognition, intelligence, and achievement*, 175-196.
27. Swarup, S. and Mehta, D.H. (1993). Diagnostic Test of Learning Disability (DTLD). Centre of Special Education, SNDT Women's University, Mumbai.