Ordinal Birth Order and Behavioural /Emotional Problems: A Study among Dyslexic Children in Kerala

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Abstract

Reading disability or dyslexia is a lifelong condition with an early childhood manifestation of inability to read. About 30% of learning disabled children have behavioural and emotional problems.(12) Birth order among the siblings is one of the important family dynamics which determine the psychological well-being of reading disabled children. **Objectives:** To find out whether any difference in behavioural/emotional problems exist between various birth order positions of dyslexic children. ***Design:*** Exploratory Design. ***Participants:*** Dyslexic Children studying in Malayalam Medium Lower Primary Schools. ***Sample Size:*** 122. ***Sampling Method:*** Purposive Sampling. ***Tools:*** Personal Data Schedule, Dyslexia Screening Checklist (Malayalam), Seguin Form Board, Specific Learning Disorder Diagnostic Tool (2) and CBCL. (1) ***Statistical Tests:*** Means, Standard Deviations and ANOVA. **Results:** The comparison of mean values of CBCL syndrome scales and birth order positions were not significant. **Conclusion:** The study concluded that the ordinal birth positions of dyslexic children could not make any alterations in the behavioural and emotional problems.

Keywords: *Dyslexia, Birth Order, Behavioural Problems, Emotional Problems*

Introduction

There is a biological instinct among many living creatures for a sibling competition to attain parental favour and resources. Human beings also have such behaviours which sometimes shown as sibling rivalry. (17) The early-born children have an adaptive advantage if they build and maintain strong parental & family ties, whereas later-born children will be more successful if they have rebellious tendencies (7).

Birth order among the siblings is one of the important family dynamics which determine the psychological well-being of children in a family. Birth order refers to the ordinal position that a child occupies within the family (7). The 'Ordinal Position' which is actual order of birth of the sibling (15). Children with reading disabilities exhibit many emotional and behavioural symptoms and their ordinal birth order exert variations in its severity and occurrence.

Birth order plays a crucial role in the occurrence and maintenance of psychological problems among reading disabled children. It is directly connected with parental favour and thereby ensures family support by the early born children. The late born children become more aggressive and rebel and revolts within the family to attain parental favour. The secure and insecure positions of siblings within the family due to birth order make them more vulnerable to psychological problems along with the existing disabilities like dyslexia.

Several theories has been put forward regarding the characteristics different birth order positions. Alfred Adler explained birth order through 'Individual Psychology' and used birth order as one of the cornerstones of his theories of personality, and he suggested that, early born-children are more likely to adopt traditional family orientation than later-born children and it is 'Conservation of Traditions' (7). Another proposition was 'Family Resource Theory' which suggested that, each additional child in the family, further stretches to available house hold resources including money, house hold space, and parental attention. It suggest that, the siblings may present a threat to healthy development, because they compete for resources that parents have available to invests in individual offspring. (9)

The Confluence Model was suggested by Zajonc & Sulloway (18) explained that, each new child in a family in a way that inhibits intellectual growth for all children in the family. It also suggested that, there will be a

'tutoring effect' that is intellectually facilitated for the children who have younger siblings to teach [7]. Birth order is a predictor of family dynamics, personality and intellectual capabilities of an individual. It also affects when any of the siblings have a mental or physical disability and when disabilities become challenge among those siblings who show altered psychological roles [4]. The resilience capacity of an individual sometimes depends upon their ordinal birth-order position. Early-born children are more adaptive than later-born children. Adler regarded fisrt-borns as power hungry conservatives, middle-borns as competitive and younger children as spoiled and lazy.[17]

Children with learning disabilities are often associated with several internalizing and externalizing problems. Sahoo, Biswas & Padhy [12] reported that about 30% of learning disabled children have behavioural and emotional problems which range from attention deficit hyperactivity disorder (most common) to depression, anxiety, suicide to substance abuse (least common). Sreedevi, George, Sriveni & Rangaswamy [16] conducted a study which revealed that, children with learning disabilities are exhibiting significant behavioural problems than children without learning disabilities. The mostly reported emotional problem was anxiety. Hyperactivity, opposite defiant conduct disorder and sluggish tempo are the common behavioural problems [8]. Arnold et al., [3] reported that, poor readers exhibit higher levels of depression, trait anxiety and somatic complaints than typical readers.

Behavioural and emotional problems co-existing with dyslexia act as a double edged sword which hurts the individual with long lasting scars. Lack of support from parents and family members makes an individual with dyslexia more vulnerable to psychological issues leading to various behavioural and emotional problems. This 'double disability' makes them hard to be resilient with poor academic performance and behavioural issues.

Method

Design: The study was conducted to explore the behavioural problems of dyslexic children on the basis of ordinal birth order. The study was conducted using exploratory design.

Participants: The participants of the study were dyslexic children studying in Malayalam medium schools with age ranging from 8 years to10 years. The total number of children selected was 122 using simple random sampling method. Only Malayalam medium children studying in 3rd and 4th standards were included in the study.

Tools:

Dyslexia-Screening Checklist (Malayalam). It was used to identify the children with reading problems and consists of 11 items. The checklist was rated by teachers. If any of these items was found with child, he/she was sent for further diagnostic procedures.

Seguin Form Board. It is a non-verbal method for assessing the intellectual abilities of children for 5 years to 15 years. It serves as a quick measure for general intelligence.[10] It is a measure of intelligence using the shortest among the trials considered for calculating mental age and is a most useful measure to test form perception, movement and intelligence.

Specific Learning Disorder Diagnostic Tool-SLDDT (Reading Test). It is diagnostic tool developed by Alex & Kumar.[2] The test was developed in Malayalam and contains five dimensions such as phonological processing, alphabet knowledge, single word reading, oral reading, oral language and motor skill. The reading sub test consists of rapid naming, letter identification, word identification, vocabulary, verbal fluency, semantic fluency, bead threading, reading passage, comprehension and pseudo word reading. The reliability of the tests for classes 3rd and 4th are 0.70 and 0.96 respectively. The criterion-related validity for classes 3rd and 4th are 0.955 and 0.977 respectively. The test is used in the current study was to diagnose the dyslexic children who were screened as having reading problems.

Child Behaviour Check List (CBCL-Malayalam) 6-18 Years. The CBCL is one among the Achenbach System of Empirically Based Assessment (ASEBA) developed by Thomas Achenbach.[1] The CBCL 6-18 years consists of school age forms and hand scored profile. There were 113 items based on DSM oriented nine syndrome scales in the CBCL. These scales were anxious/depressed, withdrawn/depressed, somatic complaints, social problems, thought problems, attention problems, rule breaking behaviour, aggressive behaviour and other problems. The test-retest reliability for problem scale was 0.95. The content validity, criterion related validity and construct validity were well established.[1] The CBCL was used in this study to identify the externalizing and internalizing problems of

dyslexic children.

Procedure: The data collection was done among the primary schools of Kannur, Kozhikode, Wayanad and Malappuram districts of Kerala. The contact number and location of each school was noted from the 'school statistics'. The head teachers were contacted and explained the details of data collection with them. Those who expressed their willingness for data collection arranged an interview with the children and their parents in a convenient time. At school, the class teachers of 3rd and 4th classes screened the children who had problems with reading. The 'informed consent' collected from the parents of screened children and Seguin Form Board administered with them. Children who had IQ above 70 with reading problems were then administered with Specific Learning Disability Diagnostic Test (Reading Disability Test). Those who diagnosed with reading disability then assessed with Child Behaviour Check List (CBCL). The personal information of the children was collected from their parents using Personal Data Schedule.

Statistical Analysis: The data was analyzed using descriptive statistics. The frequencies and means were used for analysis. Analysis of Variance (ANOVA) was used to find out the within group difference of CBCL syndrome scales among the different ordinal birth orders.

RESULTS

The mean and standard deviations of the variables in the syndrome scale of CBCL were given in the Table No.2. The birth order was expressed as first born, second born and later born and above. There were 42 (34.4%) participants as first born, 75 (61.5%) participants as second born and 5 (4.1%) participants as third born and above.

The Table 1. explain the means and standard deviations of different syndrome scales of first order born, second order born and later order born children in the studied population. The total mean and total standard deviations of the syndrome scales were also given.

Table No.1. Mean and Standard Deviations of Syndrome Scales

Sl No	Variables		N	Mean	Standard Deviation
1	Anxious/Depressed	First	42	1.119	1.38286
		Second	75	1.693	2.88038
		Third & Above	5	2.000	2.44949
		Total	122	1.508	2.45032
2	Withdrawn/Depressed	First	42	0.714	1.31197
		Second	75	0.733	1.39820
		Third & Above	5	1.400	2.19089
		Total	122	0.754	1.39841
3	Somatic Complaints	First	42	0.6905	1.58481
		Second	75	0.9067	1.88288
		Third & Above	5	0.6000	1.34164
		Total	122	0.8197	1.75818
4	Social Problems	First	42	1.2619	1.39790
		Second	75	1.7600	2.70055
		Third & Above	5	1.8000	2.16795
		Total	122	1.5902	2.30971

Cont ... **Table No.1. Mean and Standard Deviations of Syndrome Scales**

5	Thought Problems	First	42	0.4762	1.41831
		Second	75	0.8533	2.34056
		Third & Above	5	0.6000	1.34164
		Total	122	0.7131	2.03067
6	Attention Problems	First	42	2.8571	1.95774
		Second	75	3.1200	2.60955
		Third & Above	5	4.8000	4.96991
		Total	122	3.0984	2.53377
7	Rule Breaking Behaviour	First	42	0.5952	0.98920
		Second	75	0.9200	1.55754
		Third & Above	5	0.2000	0.44721
		Total	122	0.7787	1.36371
8	Aggressive Behaviour	First	42	3.0000	3.04439
		Second	75	2.8933	3.15618
		Third & Above	5	2.6000	2.40832
		Total	122	2.9180	3.07103
9	Other Problems	First	42	1.4762	1.51799
		Second	75	1.9333	2.10105
		Third & Above	5	2.2000	3.34664
		Total	122	1.7869	1.97601

The result of ANOVA was given in the Table No.2. The comparison of mean values of ordinal birth order and CBCL syndrome scales done. Three birth order positions were compared with nine syndrome scales. The F-ratio is found as follows, Anxious/Depressed (0.842), Withdrawn/Depressed (0.555), Somatic Complaints (0.241), Social Problems (0.644), Thought Problems (0.468), Attention Problems (1.328), Rule-Breaking Behaviour (1.238), Aggressive Behaviour (0.043) and Other Problems (0.832).

Table No.2: Results of ANOVA Ordinal Birth Order and Syndrome Scales

SlNo	**Variable**	**Sum of Squares**		**Mean of Squares**		**F-ratio**
		Between Group	**Within Group**	**Between Group**	**Within Group**	
1	Anxious/Depressed	10.140	716.351	5.07	6.02	0.842
2	Withdrawn/Depressed	2.185	234.438	1.092	1.970	0.555
3	Somatic Complaints	1.510	372.523	0.755	3.130	0.241

Cont... **Table No.2: Results of ANOVA Ordinal Birth Order and Syndrome Scales**

4	Social Problems	6.909	638.599	3.455	5.366	0.644
5	Thought Problems	3.896	495.063	1.948	4.160	0.468
6	Attention Problems	16.957	759.863	8.478	6.385	1.328
7	Rule-Breaking Behaviour	4.586	220.439	2.293	1.852	1.238
8	Aggressive Behaviour	0.834	1140.347	0.417	9.583	0.043
9	Other Problems	6.516	465.943	3.258	3.915	0.832

Discussion

The study was conducted among dyslexic children with their age ranges from 8 years to 10 years. The children suffering from dyslexia and other disabilities have greater prone to exhibit various forms of behavioural problems. Several factors such age, gender and birth order were reported to influence the onset of behavioural/emotional problems. The data showed that, the participants with third and above ordinal position had higher mean scores on anxious/depressed, withdrawn/depressed, social problems, attention problems and other problems. The participants with second birth order position had higher mean scores on somatic complaints, thought problems and rule breaking behaviour. Aggressive behaviour is high among participants with first birth order positions.

Result of analysis of variance presented in the Table No.2. for the 9 syndrome scales. The F-ratios were not found any significant difference between first order born, second order born and third and above order born children. The study found that, the ordinal birth order positions did not exert any influence on the behavioural and emotional problems of the given sample of participants. There were differences in opinion about the influence of birth order on psychological variables. Some studies accepted the hypothesis that birth order influences psychological variables, while some others reject. Sharma & Smriti [(13)] reported that, there were differences in psychological well-being among various birth orders they studied. Ordinal position the child holds within the sibling ranking of a family is related to intellectual functioning, personality, behaviour and development of psychopathology.[(11)]

While the present study undoubtedly found that, the birth order positions could not influence any psychological variables such as behavioural and emotional problems among dyslexic children. Dyslexia is itself a disability and development of psychopathology is very common among these individuals. Dyslexia and other learning disabilities may lower the self-esteem of the affected individual which may result in the development of behavioural/emotional problems.[(6)(5)(14)] But with the current study, the ordinal birth order could not make any change in behavioural and emotional problems of the given participants.

Conclusion

The children participated in the study were between the ages of 8 years to 10 years old who are suffering from dyslexia. There were three birth order positions described among these children. The second born children were larger in number compared to first born and third born kids. The study concluded that the behavioural/emotional problems of children suffering from dyslexia were left unchanged with various birth order positions.

Ethical Clearance: Ethical clearance obtained from the Doctoral Committee, Kannur University.

Conflicts of Interest: None declared.

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