

**ORIGINAL ARTICLE**

MATERNAL STRESS AND BEHAVIORAL-EMOTIONAL PROBLEMS IN THE CHILDREN WITH DYSLEXIA

## SAIRA KHAN', FARAH MALIK'

'Assistant Professor, Dep.,rtment of Applied Psychology, G C Women University Faisalabad Madina Town 38000-Faisalabad, Pakistan

'Professor, Director of Institute of Applied Psychology. University of the Punjab, Quaid-1-Azam Campus Lahore, Pakistan

**CORRESPONDENCE: SAIRA KHAN,** E-mail: [sairakhan2003@gamil.com](mailto:sairakhan2003@gamil.com)

Submitted: December 13, 2017

Accepted: February 06, 2018

## ABSTRACT

**OBJECTIVE**

To assess the behavioral-emotional problems in children as determinant of stress in the mothersof childrenwithdyslexia.

## STUDY DESIGN

Correlational Research Design

## PLACE AND DURATION OF STUDY

The study was conducted in Lahore and Faisalabad, and the duration of the study wasone year.

## SUBJECTS AND METHODS

Children of 7-12 years (M *=* 9.7 SD= 1.66) were recruited from English medium schools and their mothers wereparticipated in the study.Urdu version of Comprehensive Behavior Rating Scale of Children (Neeper, Lahely, & Frick, 1990) was rated by the class teachers to indicate the behavioral-emotional problems in children. Urdu version of PSI was administered to mothers of children with dyslexia to measure their stress.

## RESULTS

The results suggested that children with dyslexia showed significant elevated behavioral-emotional problems **i.e.** 2 standard deviations *above* the mean. Children with dyslexia showed significantly higher scores on inattention-disorganization, oppositional conduct disorder,

anxiety, sluggish tempo and motor hyperactivity sub stales of CBRSC. Results also indicated significant gender difference; with boys being higher on behavioral-emotional problems than girls. Mothers of children with dyslexia showed higher rate of stress which was mainly related to their children's disability Mothers with less educational level and belonging to lower socioeconomicclassreportedhighstress.

## CONCLUSION

It was concluded that children with dyslexia showed a wide range of behavioral-emotional problems that could be mainly attributed to maternal stress.The findings of the current study might behelpful for the parentsand the school teachers to get acquainted with theissue of dyslexia In school population and its impact on their academic performance.

## KEYWORDS

Dyslexia,Behavioral-EmotionalProblems,MaternalStress.

## INTRODUCTION

Dyslexia is an unpredicted reading difficulty in individuals who have the intelligence, schooling, and motivation, considered essential for fluent and accurate reading'. In particular dyslexia is classified asa disability in learning process which is manifested in the form of difficulties of reading, writing and spelling etc. It is separated and dissimilar from the problems in reading, resulting from other causes, such as deficiencies with hearing and vision, intellectual deficits, or from inadequate or poor instructions for learning how to read'.

As described in DSM-V the essential feature of dyslexia is reading achievement (reading accuracy, speed, and comprehension) that falls substantially below as measured by the administration of standardized individual tests, which expected given the individual's measured intelligence, chronological age, and age appropriateeducation'.

Researches indicate that the most of preschooler children with dyslexia are well adjusted and happy'. Their emotional and behavioral problems begin to develop when early reading instruction does not match their learning style'. Inability to meet expectations creates the frustration in the children with dyslexia. Adults with dyslexia frequently report most of the symptom of anxiety. Because of their constant frustration and confusion in school, children with dyslexia become fearful. Social psychologistshave frequently observed thatfrustration produces anger. According to a research, care givers (mothers) of children with learning disability reported that learning disability adults have significantly higher prevalence of physically aggressive behavior towards others. Learning disabled people frequently compete with a lifetime of adversity, insufficient social support and poor coping skills. These factors play *very* important role to increase their vulnerability to stressful life events which may trigger anxietydisorders'.

According to Borthwick-Duffy. (1994) people with intellectual disability arevulnerable group witharelatively higher prevalence of mental disorders'. Frustration becomes the cause of many of the emotional problems in school or social situations. It is often observed *by* Social scientists that frustration produces anger and this is very much true in the case of many people with dyslexia. Teachers and school would be the noticeable target of the



dyslexic's anger'. The children with dyslexia frequently have problems with social relationships. Children with dyslexia have problemretrieving thesequence of letterorwords.Theymaynarrate a different sequence of events each time he tells the tale. Parems, teachers, and psychologists may conclude that he is either pathological liarorapsychotic'.



Ryan (2004) posited that depression could be a frequent complication in dyslexics. According to him Children with dyslexia having low self-esteem usually scared to turn their anger toward their environment and instead tum it toward them. Depressed children and adults tend to have three characteristics: firstly, they tendto havenegativejudgment aboutthemselvesmeansa negative self-image. Secondly, they tend to have negative views about the world.They were usually;umped to negativeconclusion byignoring good events and thus lesslikely to enjoy the positive expenences in life.This situation makes it difficult for them to have fun.Finally, the majority of depressed youngsters have great trouble imagining anything positive about the future. The depressed children and adults with dyslexia not only feel great pain in his present experiences. butalso foreseecontinuingfailurethroughout thelife'.

McDowell. Saylor,Taylor,Boyce,andStokes (1995) posited thatwhen providing services for children and their families, parenting stress was a considerable variable, for example, mothers appeared to be more abusive, punitive andcontrolling reported highlevels of stress fromlifeevents thanmothers whohadlower levelsof stresss'

There are many factors that appear to be involved in moderate parenting stress. Gender (boys are perceived as more stressful); socioeconomicstatus(stronglybut negatively associated withlevels of parenting stress";age(theolderchildismore stressful forparents); and maternal characteristics, such as education (the less educated, the more stress is experienced); age(theolder the parent, the more stress),appeartobeconsiderable moderatorsof parentalstress".

Mahoney, O'Sullivan, and Robinson, (1992) indicated that mothers reportedmorestressthan their spouses, thiselevatedmaternal stress might be associated with inadequate spousal support and might negatively related to family cohesion". Mothers of children with learning disorders reported to experience greater depression, more levels of stress, poorer coping ability than their spouses'', perhaps because of lesspaternal involvement"or maternal internalization of theirchild'sInabilityastheir ownfaultandfailure reading".

Arecentstudyconducted byKeller andHonig(2004) however,posed thatraisinga childwithadisability mightcause similarstress levelsin both fathers and mothers. However, path analyses showed that fathers were more worried about the social acceptance of his child and the mothers were more stressed by children's neediness and demandingness".

Reading disorder (dyslexia) is a well-researched area in the developedcountries but rarein developing countries likePakistan.In Pakistan parents are completely unaware even about the existence of such disorder in children and even teachers are not much more aware of this problem. Educational, emotional and behavioral problems of the children with readingdi.sorder become an issue for the children, parents and the teachers. When this problem is reported 10 the parents they often blame the teachers and the

school. Parents show their dissatisfaction about the performance, efficiency and ability of the teacher and school and often try to change the school of the children with reading disorder. The situation is worsened by the fact that frequently the mother and father having a child with dyslexiachild may be involve in different andconflicting stages at thesametimeforexample,blame vs.denial: anger vs. guilt. The mothers raising a child with dyslexia often experience an elevated level of stress and this maternal stress consequently leads to behavioral and emotional problems in the children with dyslexia. The present study has been designed to identify the patterns of behavioral and emotional problems in childrenwithdyslexia, to examine theeffectof behavioral/emotional problems on the mothers of the children with reading disorder. Objectives of thestudyareas follows;

1. To determine the behavioral/emotional problems in children withreadingdisorder.
2. To determine the level of stressin the mothers of children with readingdisorder.
3. To investigate the relationship between behavioral/emotional

problems inthechildrenwithdyslexia andthematernal stress.

1. To examine the interplay among maternal stress, and behavioral problems in childrenwithreadingdisorder.

#### Hypotheses

1. Children with dyslexia are likely to have behavioral/emotional problems.
2. Maternalstressis likelyto bepredicted bybehavioral-emotional problemsin childrenwithdyslexia.
3. Education of themotherwoulddeterminestressin mothersand behavioral-emotionalproblemsin childrenwithdyslexia.

## SUBJECTS AND METHOD

#### Participants

Apurposive sample of 60children with dyslexia withage range of7- 14(M=9.7 SD= 1.66) included 24girlsand36boys was drawn from

differentprivateEnglish mediumschoolsin Faisalabad.

The second part of the sample was consisted of 60mothers of these children with dyslexia. Mother's age was ranged from 24-45 (M*=* 34.87, SD = 4.59) and belonged to different SES groups and educational levels. A detailed description of the demographic

characteristics of two samples of the current study i.e. mothers of childrenwithdyslexia andchildrenthemselves,isgiven in Table 1.

#### Instruments

**A** brief interview with children {having reading problems) and their teachers was conducted to identify the children having reading problems (confusion with before/after, right/left, difficulty learning the alphabet, mixing up sounds, transpose letters, confusion with combinations of words). Identifiedchildrenwerethenscreened with thehelpofBangorDyslexiaTest.

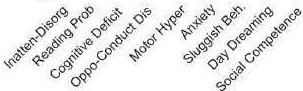
# *Bangor Dyslexia Test (BDT)"*

Bangor Dyslexia test wasusedasaquick screening devicefor finding





out whether the subject's difficulties are or arenot typically dyslexic. BDT is Intended to operationalize the concept of dyslexia by indicating who dyslexic is, by definition. It offered as a contribution towards further understanding of the subject's difficulties, not as a meanof definitivediagnosis.



Behavioral Prohlems

100

90

80

70

60

50

40

30

20

10

0

l

I I

r

r

I

I I

I

It isalso suitable for useby educationaland clinical psychologists asa part of wider assessment. It is offered as a contribution towards

further understanding of the subject's difficulties in reading. Author suggestednot to be usedwithsubjectsagedlessthan7u\_

# *Comprehensive Behavior Rating Scale* of *Children* (CBRSC)"

The Comprehensive Behavior Rating Scale of Children is a 70 items teacher rating scale to assess behavioral-emotional problems in children, The teachers have to rate the children as they typically behave by circling the appropriate number (0-5) for each behavior listed on the rating scale. Each item in scale describes a particular behavioral or cognitive attribute of the child. The 5cale includes following subscales, Instrumental- Disorganization (ID), Reading problems (RP), Cognitive Deficits (CD), Oppositional-Conduct disorder(OP),MotorHyperactivity (MH), Anxiety(AN),SluggishTemp (ST),Daydreaming(DA), and SocialCompetence(SC).

Rawscoresaretransferred to standardscore(TScores) withameanof 50 and a standard deviation of 10. T scores that are elevated at least 1.5standarddeviationunitsabovethemean.Or 65Tare significant.

The author has reported high estimates of test-retest reliability ranging from .84 to .94. CBRSC was also translated in Urdu while employing standardized translation procedure'".The item to item correlation was computed for both (Urdu and English) versions of CBRSCwhichwereranging from.53 to .97.

# *Parenting Stress Index (PSI)"*

Parenting StressIndex is an instrument with primary value to assess parent-child interactions whichareunder stressand at the riskfor the development of dysfunctional parenting behaviors or behavior problems in the child involved.For the present studyUrduversionof PSI wasused".ThePSIis a q,1estionnaire, consistsof 120 items;assess seven parental characteristics and six child characteristics. The measure has significant psychometric properties with different samples. The internal consistent reliability of PSI was .70 to .83 for child domain, .70 to .84 for parent domain and for total .90 or

greater"'. Reliability of Urdu version scale was estimated by computing Cronbach'salpha coefficient whichwas*.871'.*

### Procedure

The formal permission was sought from the school authorities for data collection. Informed consent both from parents and children was takenwiththehelpofschoolauthorities.

# *Stage I: Screeningof Children with Dyslexia*

At the first stage screening procedure was carried out.After getting permission fromthe principal of the schoolsthe classteachers having at least one year contact with students were requested to refer the children having reading problems. Then a brief interview with children (having reading problems) and their teachers was conducted to identify the symptomsof dyslexia asper DSM-V criteria

(confusion with right/left, before/after, mixing up sounds, difficulty learning the alphabet, transpose letters, confusion with combinationsof words).These children were thenscreened withthe help of Bangor Dyslexia Test. A score of 6 'pluses' for age group 7-9, 5 'pluses' for age group 10-11,and 4 'pluses'for agegroup12-14 was takenascriteria of screening the children withdyslexia.

# *Stage II: Data Collection fromTeachers*

In the next phase teachers having at least one year contact with the children withdyslexia were requested to ratethe identified children ashe or shetypically behaves by circling the appropriate number (1- 5) for eachbehaviorlistedon theCBRSC.

***Stage*** *Ill:* ***Data Collection* from *Mothers***

In the last stage mothers of the selected children werecontacted by inviting them in the school or contacted at their home places (according to their convenience) and requested to complete the Parenting Stress Index. Mothers were also requested to provide required demographic information like family income, profession of mother, ageof motherandeducation of mother.

### RESULTS

TI1e data were analyzed with thehelp of SPSS. The data /results are presented by finding Pearson correlation, conducting Regression analysis for different measures and relationship of demographic variables with maternal stress, behavioral-emotional problems of childrenwith dyslexia.

Table I

Demographic Information of Participants

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Motllw* ***(n-fJO)*** |  | ***C/uJtlun*** *(n-61/)* | | | | |
| Age **la** yean |  | AgeIn | ytar, | | | |
| Mean (SD) | 34.87 (4.59) | Mean (SD) | | 9.7 (1.66) | | |
| **Raagc-** | 24-45 | Range | | 7-13 | | |
| **Education** |  | **Cender-** | | |  |  |
| **Below-Metric** | 8(13) | Boys | | 36(60) | | |
| f.A-0.A | 41(69) | **Girls** | | 24 (40) | | |
| **MA\1\1Sc andabove** | 11(18) |  | |  | | |

Figure l

##### tvtean Scores, T scores and Percentile of Teacher's Rating on

Comprehensive Behavior Rating Scale for Children (CBRSC)

* MeanScores
* T Scores

D Percenliles



*f* O 1., .n P *Y'* '1 :i ic Socretv

Figure 1 represents the T scores and percentiles of mean scores(N *==* 60)foraIIsubscalesof CBRSC.Tscoreisstandard scorewith a mean50 and SD of 10. Several ofT scores were extremely elevated i.e.more than two standard deviation above the mean. T score on Reading problem and anxiety were 76 and 77 respectively which were extremely elevated. T scores on subscafes of Oppositional conduct disorder, Cognitive Deficits, Sluggish behavior, Inattention­ disorganization and motorhyperactivity were alsoelevated.All these high scores indicated the presence of behavioral-emotional problemsin the children withdyslexia.

Tablc2

Pr.,diclors of Maternal Stress

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variables** | **8** | SE | **p** | I | **p** |
| Step I (R.=.876, *R'=.7611)* |  |  |  |  |  |
| Cltild Domain Stress | 1.51 | ,12 | .88 | I3.85 | .0001 |
| Step Z *(R=.953, R1=.9//, )* |  |  |  |  |  |
| Child Domain Stre$S | .97 | .09 | *.56* | 10.74 | .0001 |
| Parem Domain Stress. | .80 | .09 | .49 | 9.32 | .0001 |
| **Step 3** *(K=,959. R'=.9Zn)* |  |  |  |  |  |
| Child Domain Slrc$s | .91 | .08 | .53 | 10.45 | .0001 |
| Pan.::ul Domain Stress | .78 | .08 | .48 | 9.61 | .0001 |
| Bclw-Emo1ional Problems | .10 | .03 | .12 | 2.94 | .001 |
| Step **4** *(R=.9(11. R'=.916)* |  |  |  |  |  |
| Child Domain Stress | .88 | .09 | .51 | 10.21 | .0001 |
| Parent Domain Stress | .80 | .08 | .49 | 10.09 | .0001 |
| Be-ha•Emotional Problems | .10 | .03 | .12 | 3.03 | .001 |
| Age of Child | 3.16 | 1.52 | .08 | 2.84 | .05 |

*Step/: F (5,V}* = *LVl.87, p<.0001. Siepl: F (57)*= *281.27, p<.0001. 5)ep3.· F(56! =215.1/5. p<.0001. Step4: F(55)= 172.31. p<.0001.*

Stepwise Multiple Regression Analysis was performed for predicting maternal stress while using Behavioral-Emotional Problems, Age & gender of child and socioeconomic status as Predictors (l'able 2). Child domainof PSI emergedas the strongest predictor of maternal

stress that accounted 77 % of variance in total maternal stress,

=1.51, t = 13.85, p < .0001. Parent domain of PSI and behavioral­

emotional problems also emerged as the predictor for maternal stress, =.80, **t** *==* 9.32, p < .0001; ==.10, t *==* 2.94, p < .001. The

excluded variables were age of child, gender and socioeconomic status.

##### TaMe3

Correlati,;mal Matrix of Predictors

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Variabk** | **2** | 3 | **4** | **s** |
| l. | Total tvlatem..'11Stiess | .88°0 | - sun | \_45o:t. | .22\* |
| *2.* | Child Domain Stress | . | ,64••·· | .36°\* | .13 |
| 3. | Parent Domain Stress |  | . | .29u | * .03 |
| 4. | Beh-Emo Problems | . | . |  | .03 |
| *5.* | Age of Child |  |  |  |  |

Ta.ble **4**

One Way AJ'-IOVA on PSI and CBRSC of Children ,viih Dyslexia for

Educ.olion of Molher

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SourctorVariance** | **Sl!** | **dr** | ***MS*** | **F** |
| P nml St.res.lndex (PSI) | | | | |
| Between Groups | 7434.29 | 2 | 3717.14 | 4.40• |
| Wnhin Groups | 481754.44 | 57 | 845.17 |  |
| Total | 55608 73 | 59 |  |  |
| CompreJ1ensive Behavior RalillgScale for Children (CBRSC) | | | | |
| Between Groups | I1327.76 | 2 | 5663.88 | 4.90\* |
| Within Groups | 65962.83 | 57 | 1174.98 |  |
| Tola! | 77290.58 | 59 |  |  |

*'p<..01. (N=61/)*

**Table** 5

Mean and SD of lhe Scores of PSI and CBRSC as Reported by Mothers

and Teachers

|  |  |  |  |
| --- | --- | --- | --- |
| **Group,** | **a** | **M** | **SD** |
| Parent Strt.,;,.s Index (PSI) | | | |
| Below-l\11Clric | 8 | 342.00 | 34.49 |
| PA·BA | 41 | 320.19 | lS.95 |
| M1\/MSc nndaboY<: | II | 302.00 | 25.12 |
| Comprehen ive Behavior Rruing Scale for Children (CBRSC) | | | |
| Och,,v·Metric | 8 | 253.00 | 29.69 |
| PA-BA | 41 | 246.44 | 34 47 |
| MA/MSc and above | II | 212.45 | 35.03 |

*The:table 4 indicwes 1h01 mo1hc1<1· cd11c·a1ion is o significant comrib/llVIJ'*

*factor towartl< theirlevel c,fslre,u F (2. 57)* - *4.40 p<* .I)/ *mu/*lire *child's*

*/,ehaviora/ problems F/2. 57)~4.90 p* < *.OJ.*

The table 5 Indicates that the mothers of children with dyslexia having less education had higher mean scores(M *==* 342,*SD==* 34.49) ascompared withhighly educated mother (M*==* 302.00, SD==25.12) on Parent Stress Index. Children with dyslexia having less educated

mothers had higher mean scores **(M** = 253,5 D= 29.69) ascompared with children having highly educated mothers **(M** *==* 212.45, SD *==* 35.03)on Comprehensive BehaviorRating ScaleforChildren.

### DISCUSSION

The present study was designed to investigate the relationship of

*•p<.05. ••p<./1/* p<.()(//, *··••p<./1001.*

Correlational matrix of predictors strengthens our results (Table 3). Maternal stress showed positive significant and strong relationship

with child domain and parent domain (r =.8B; r = .85). Table 4 also

shows significant positive relationship of maternal stress with behavioral-emotional problems(r= .45).

child's reading disorder (dyslexia) with severity of behavioral­ emotional problems and maternal stress being the mothers of children with dyslexia. Difficulty in phonological awareness, mixing up soundsin multiple-syllabic words, transpose letters and difficulty learning alphabets contribute a lot in producing behavioral problems",Behavioral-emotional problems,anddifficulty in reading internscreatestressin themothersof children withdyslexia".

The first hypothesis of the present study was that the children with dyslexia would have behavioral-emotional problems and in the present study theteachersof the children withdyslexia reported that most of their students with dyslexia had emotional problems like anxiety and tension and behavioral problems like inattention-



l('t:rrc.1 r n I Lt

disorganization,oppositional conduct disorder, motor hyperactivity and sluggish behavior.Results ofthepresent studyindicated thatthe children withdyslexia wereanxiousis consistent withthefindings of the studyconducted by Hales (1994) who indicated that at primary school children with dyslexia were tensed and frustrated, with low motivation and high anxiety. These results suggested that children withdyslexiabecome frustratedbecauseof their constant failure and suffer a lot with confusion in the school. This situation intensified because of the consistent problems of dyslexia. Children with dyslexia cannot anticipate failure because every new situation becomes extremely anxiety provoking". The results also depicted thatchildren withdyslexiahad behavioralproblems like oppositional conduct disorder, motor hyperactivity, Inattention and sluggish behavior, which is in accordance with the research conducted by Heiervang, Stevenson, Lund, and Hugdahl (2001) who suggested

that pre-adolescent children with dyslexia had a wide range of

behavioral problems that cannot be attributed to developmental backgroundor socialvariables''.

Results further suggest that mothers of children with dyslexia were under great stress areconsistent withthestudyconducted by Bailey, Golden,and Robert(2007) thatthereading disable child'sbehavioral problems were consistently associated with maternal depression and stress". Maternal stress was already examined by Little (2002) who indicated that mothers of learning disorder had higher rates of stress, had more use of antidepressant, and also had frequent therapy use thandid fathers".Resultsalsoindicated thatthemothers of children with dyslexia experienced stress which is mostly related with the child domain of PSI. Although the correlation analysis indicated that maternal stress was highly correlated with child domainof PSI,it wasalso stronglyrelated to parentdomainof PSI but less thanchilddomain.

Data werefurtherexplored through stepwise regression analysis and the results indicate child domain of PSI emerged as the strongest predictor of maternal stress that accounted 77 % of variance in total maternal stress.Behavioral-emotionalproblemsand ageof the child

also had positive strong relationship with maternal stress. These results are complimenting many studies examining maternal stress among the mothers of children with dyslexia,Little(2002) who noted that child's age was also related to maternal stress and coping variables" and Bailey, Golden, and Robert who noted that child's behavioral problems, maternal stress, and coping style were consistently associatedwithdepressive symptoms of mothers".

In the present study demographic variables were explored along withthemainvariables of the studyand the resultsuggested thatthe less educated mothers of children with dyslexia reported elevated stress in them as Casey, Levy, Brown, and Brooks - Gunn, J. (1992)

noted that the low educational level of the mothers badly affected the behavior of the children withdyslexia".

## CONCLUSION

The present study suggests that dyslexia has a far greater impact on behavior development beyondreading.Children with dyslexia areat risk of emotional-behavioral problems. The mostly reported emotionalproblem by children with dyslexiaIsanxiety.Children with dyslexia also have behavioral problems such as hyperactivity, inattention, oppositional conduct disorder and sluggish tempo.

**p *J*** I I... C *J* I ..

These reading difficulties also affect adversely the children with dyslexia. It may also be suggested that mothers raising a child with dyslexia often experience an elevated level of stress. This maternal stress in turns negatively affects the behavior of the children with dyslexia. Present analysis strongly suggests that children with dyslexia have significant behavioral-emotional problems. These problems have negative impact on learning process along with readingproblem.

## IMPLICATIONS OFTHE STUDY

The current findings contribute to what is known to behavioral­ emotional problems in the children with dyslexia and have implications for these children and for the teachers and parents interacting with them. The present study has provided a basic understanding about verycommon learning disorder dyslexia that canhelp theteachers and the parents to prevent or at leastalleviate the other related problem of dyslexiaspecially which werestudied in this study. Furthermore, it is suggested that professional and parental awareness about the disorder and their support can reduce the negativeimpactsof anydisorder,it isimportant thatteachersand parentsare wellawareof dyslexia to dealwithit effectively.

## LIMITATIONS AND SUGGESTIONS

There are many limitations of the present study that should be considered in any attempt to generalize the findings of the present m1dy.

I. Thestudywaslimitedtotheagegroupof7-12years.

1. Only the mothers of the children with dyslexia were included in sample,inclusion of fathers might give clearer picture of parental stress.
2. Behavioral problems were only rated by teachers for the present

study;theseproblemsshouldalsobe rated by mothersthatmight give the clearer picture of behavioral problems, recommended for the futureresearch.

1. Further research into howchildren with dyslexia cope with their

disability issuggested.

## REFERENCES

1. Shaywitz SE.Dyslexia. New England.Journal of Medicine 1998; 338,307-12.
2. Stanovich KE. Explaining the differences between the dyslexic and the garden-variety poor reader: The phonological-core variable-difference model.Journal of learning disabilities 1998; 21(10):590-604
3. American Psychiatric Association. Diagnostic and Statistical Manualof Mental

Disorders:DSM-V(5thed.).Washington D.C:Author.2013

1. Orton ST. Reading, Writing and Speech Problems in Children. New York,1937

NortonandCo.

1. Cooray SE, Bakala A. Anxiety disorders in people with learning disabilities.Advancesin PsychiatricTreatment2005;1:355-361.
2. Borthwick-Duffy SA. Epidemiology and prevalence of

psychopathology in people withmental retardation. Journal of Consulting and Clinical Psychology 1994;62:17-27.

1. Ryan M. Social and Emotional Problems Related to Dyslexia. International Dyslexia Association Fact Sheet series.©





Copyright 2004,TheInternationalDyslexia Association (IDA).

1. Ryan M. Unlocking the Social and Emotional Enigmas of Dyslexia.Perspectives2004;30:No.4:1-4.
2. McDowell AD, Saylor CF, Taylor MJ, Boyce GC, Stokes SJ. Ethnicity and parenting stress changeduring earlyintervention. Early ChildDevelopment andCare1995;111,131-140.
3. Kazdin AE, Stolar MJ,Marciano PLRisk factors for dropping out treatment among White and Black families. Journal of family psychology.1995;9:402-4-17.
4. Tunali B, Power TG. Creating satisfaction: A psychological perspective on stress and coping in families of handicapped children. Journal of Child Psychology and Psychiatry 1993; 34: 945-957.
5. Mahnoey G,O'Sullivan P,Robinson C.The family environments

of children with disabilities: Diversebut not sodifferent.Topics in EarlyChildhoodSpecialEducation 1992;.12:386-402.

1. Little L. Middle-class mothers' perceptions of peer and sibling victimization among children with Asperger's syndrome and nonverbal leaning disorders.Issues in ComprehensivePediatric Nursing 2002;25:43-57.
2. Kwais-Sang, YauM, Li-Tsang WP. Adjustmentandadaptation in parents of children withdevelopmental disability in two-parent families: A review of the characteristics and attributes. British Journalof Disabilities1999;45:38-51.
3. Jacobs E. Parenting the child with learning disabilities: The challenge of mothering and fathering. Learning Disabilities Journal1996;6:1-6.
4. KellerD, Honig AS.Maternalandpaternal stressin families with school-aged children with disabilities. American Journal of Orthopsychiatry 2004;74:337-348.
5. Miles TR.Dyslexia: the Pattern of Difficulties.Oxford: Blackwell. 1983
6. Neeper R, Lahey BB,Frick JP.Comprehensive Behavioral Rating Scale for Children: Manual. NY: Psychological Corporation. Harcourt Brace& Co.1990
7. Malik F, Gui A, Humphreys G. Behavioral and emotional problems in abused and non-abused children in a Pakistani cohort.Pakistan Journal of Psychological Research 2010; 25(2): 179-202.
8. AbidinRR.Parenting StressIndexManual,{3rd edition).Odessa, FL:Psychological Assessment Resources. 1995
9. Anjum N, Malik F. Parenting practices in mothers of children with ADHD:Role of stressandbehavioral problemsIn children. PakistanJournalof SocialandClinical

Psychology 201O;8 (1):18-38.

1. Willcutt EG, Pennington BF. Comorbidity of reading disability and attention -deficit /hyperactivity disorder: Differences by genderandsubtype. Journalof LearningDisabilities2000;33(2): 179-191.
2. Antshel KM, Joseph GR. Maternal stress in nonverbal learning disorder: A comparison with Reading disorder. Journal of LearningDisabilities2006;39:194-205.
3. HalesG.Thehumanaspectsof dyslexia.InG.Hales(Ed.),Dyslexia Matters.London,Whurr.1994
4. Heiervang E, Stevenson J, Lund A, Hugdahl K. Behavior problems in childrenwith dyslexia.NordicJournal of Psychiatry 2001;55:251-256.
5. Bailey Jr DB,Golden RN, Roberts J, Ford A.Maternal depression and developmental disability: Research critique. Mental RetardationandDevelopmental Disabilities2007;13:321-329.
6. LittleL.Differences instress andcoping formothers and fathers of children with Asperger's syndrome and nonverbal learning disorders.PediatrNurs2002;28(6):565-70.
7. Casey R, Levy S, Brown K,Brooks - Gunn J.Impaired emotional health in children with mild reading disability. Developmental andBehavioral Pediatrics1992;13:256 - 260.