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Predictors of Parental Stress in Parents with Differently Abled Children in greater Kolkata district, West Bengal

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Abstract

The present study was conducted to assess the predictors of Parental Stress in Parents of children with four types of disabilities (VI, ID, HI and Autism) in greater Kolkata district, West Bengal. The investigators adopted Proportional Stratified Simple Random Sampling Technique for collecting the sample (n=400). The revised version of PSI (Abidin,1983) was administered to assess the predictors of parental stress, along with two subscales- the Family Adaptability and Cohesion Evaluation Scales III (Olson, Bell, & Portner,1982) and a self-prepared Interview Schedule (deals with 2 sub-scales: Helpfulness of the Network (Qs No-1- 7) and Size of Network (Qs.No.8-13) following five point Likert Scale: 5=Strongly Agree, 4= Agree, 3=Undecided, 2= Disagree,1=Strongly Disagree. The Hierarchical Multiple Regression Analysis was administered with the help of IBM SPSS AMOS-24 Version and the Researcher inserted Parenting Stress as the Dependent Variable and four Blocks as predictor variables (12). The result demands that among the eight (8) predictor variables associated with parents of the differently abled children's characteristics (block-1), three predictors (thinking about the future of the differently abled children, poor physical or mental health of the parents & monthly income of the parents) were statistically highly significant at 1% level. Another two predictor variables such as no. of earning member(s) in the family and type of family were moderately significant at the 5% level. The total model of sexual-relationship of the parents with differently abled children was moderately significant at the 5% level, and accounted for 26% of variance. Among the differently abled children's characteristics (block-2), additional handicap in the differently abled children was considered as the highest type of Parental Stressor (t= 3.43). Gender and birth order of the differently abled children were recognised as moderately significant predictors of Parental Stress for their parents. The total model of Family Functioning (Block-3) of the parents with differently abled children was also an important predictor of Parental Stress in the parents accounted for 48 % of variance with high t-value (4.68) at 1 % level of significance. On the other hand, the total model of Social Functioning of the parents with differently abled children (block-4) was also an important predictor of Parental Stress and accounted for 38 % of variance with greater t-value (3.28) at 5 % level of significance.

Index Terms: Autism, Family Functioning, Hearing Impairment, Intellectual Disability, Social Functioning, Stress, Visual Impairment

Introduction

The birth or diagnosis of a Differently Abled Child in a family leads to a situational crisis. Parents face a grehallenge to tackle the problems associated with disabilities in their children. It may rejuvenate an unanticipated, traumatic event beyond parents' control (Hoff 1978). They suffer from emotional disturbances, physical & psychological stress and anxiety, and subsequently develop depressive symptoms. Emotional pressure, depressive symptoms, and stress have

been cited by WHO (2001) as having the highest burden among the Parents having Differently Abled Children impairing their social and physical functioning. These even leads to several panic situations such as suicide, parental separation, increased health care costs, morbidity, and mortality. Parents with Differently Abled Children may experience fatigue in family life, low satisfaction in professional and social life, and resign in the early phases of career (Krauss, 1983).

Siddiqui (2014) rightly claimed that no single factor affects the stress level of Parents with differently abled children. Parents of children with disabilities experience different levels of stress as per their availability of various support resources and the condition of the child's impairment. A great number of studies pointed out that the predictors of parental stress in parents of children with autism were concerned with the severity of the impairment (e.g., Osborne and Reed, 2009; Ingersoll and Hambrick, 2011; Rivard et al., 2014), the unpredictable behaviours or emotional problems of their children (e.g., Tomanik et al., 2004; Herring et al., 2006; Lecavalier et al., 2006; Osborne and Reed, 2009; Estes et al., 2013), as well as financial worries. These three predictors of stress in the parents with differently abled children were reported secondary to the need to spend for counseling, medical treatment, intervention, guidance and education (e.g., Sharpe and Baker, 2011; Vohra et al., 2014; Zablotsky et al., 2014; Thomas et al., 2016). Additional predictors of stress in the parents with differently abled- children documented the critical role of social support that helped them successfully cope with their higher levels of stress (e.g., Tehee et al., 2009; Ekas et al., 2010; Lovell et al., 2012; Weiss et al., 2013). Some studies recognised the importance to gain easy access to and support from health professionals as vital predictors for the parents with differently abled children, especially autism (e.g., Mackintosh et al., 2012; Vohra et al., 2014).

1.2 Conceptual Framework of the study

Two theories of stress: General Adaptation Syndrome (GAS, Hans Selye 1956) and Appraisal Theory of Stress (Lazarus & Folkman, 1984) serves for the conceptual framework of the study. Hans Selye (1956) in his GAS model considers stress as a dependent variable as well as a physiological response pattern. It also hypotheses that Stress is a defensive mechanism and it follows the three stages of alarm, resistance, and exhaustion. According to Appraisal theory, there are two types of appraisal: 'Primary Appraisal' and 'Secondary Appraisal'. Primary Appraisal determines the severity. It is the individual's evaluation of an event or situation as a potential hazard to his or her well-being. Secondary Appraisal is the individual's evaluation of his or her ability to handle the event or situation. Finally, 'Reappraisal' effectively controls the aversion effects of the stressors.

1.4 Objective of the Study

The objective of the study is to assess the predictors of Parental Stress in Parents of children with four types of disabilities (VI, HI, ID and Autism).

1.5 Hypotheses

The following null hypotheses are formulated for conducting the study:

$H_0$1: There is no significant relationship between Parental Stress in Parents with four types of Differently Abled Children (VI, HI, ID and Autism) and the following predictor variables:

(i) Monthly Income in the family
(ii) Educational Level of the Parents
(iii) Type of family
(iv)Time of diagnosing the disability
(v) Additional Handicap in the Differently Abled Children
(vi) Gender of the Differently Abled Children
(vii) Future of the Differently Abled Children
(viii) Sexual Relationship

1.6 Research Design

1.6.1 Population, Sample and Sampling Technique

The population of the study comprised of parents of students with disabilities enrolled in eight (8) special schools in Kolkata, West Bengal (India), including Asutosh Institution for Mentally Retarded, Behala Bodhayan, Calcutta Blind School, Voice of World, Calcutta Deaf & Dumb School, Ideal School for the Deaf, Pradeep Kendra, and Mentaid Special School. The total number of population comprised of 826 both Parents or 1652 respondents. Among them, Male were 826 and Female were 826. Parents of four (4) types of differently abled children (MR, VI, HI and ASD) had enlisted in the population. The children were studying in class-IV to X in different special schools in greater Kolkata. Single Parents and Orphan Children had been excluded from this study. For the purpose of the sample, the investigator adopted 'Proportional Stratified Simple Random Sampling'. The total sample size was restricted to 400 both parents only. (Parents with ID/MR children - 36 , Parents with VI Children: 46 , Parents with HI children: 83, Parents with ASD children : 35). By following Yamane (19670:886-87) formula, the sample size 322 is enough for conducting the aforesaid survey. $N= N/1+ n(e)^2$

1.6.2 Tools used

1.6.2.1 Revised Parenting Stress Index (Abidin,1983) and its Construction Process

To asses Predictors of Parental Stress in the Stress Levels of Parents having differently abled children, the researcher adopted the revised version of Parenting Stress Index (Abidin,1983). The Parental Stress Index-Long Form (PSI-LF) consists of 120 items representing child and parent characteristics domains (101 items) and an optional stressful life events scale (19 items). AMOS-21 version was used in this study because it is quickly emerging as a powerful approach to measure unobserved variables using the Structural Equation Modelling (SEM). The Researcher calculated Exploratory Factor Analysis (EFA) to summarise data by grouping together variables that were intercorrelated. Whereas Confirmatory Factor Analysis (CFA) necessitates the estimation and specification of one or more hypothesised models of factors structure, each of which proposes a set of latent variables (factors) to account for covariance among a set of observed variables.

Referring to Table 1, we can see the accounted cumulative variance with the 72 items PSI scale. As directed by Munro (2005), the researcher utilised the Kaiser–Meyer–Oklin (KMO) test to compare the zero-order correlations to the partial correlations between pairs of variables. Kaiser (1974) argued that if KMO is greater than 0.50 it is acceptable. The KMO in EFA in the study model was 0.91. The closer the KMO to one (1), the better the correlations between pairs of variables that can be explained by the other variables. The Cronbach's alphas for the 72-items elven-factors model of PSI scale in the current study were estimated as equal or higher than the 101-item (See Table 3.8). To examine the multivariate normality of the data Analysis of Moment Structure (AMOS, version 21.0) software was utilised (Arbuckle 2012). Normality assessment was usually rejected on the ground that the ratio of skewness was higher than -1 and/or, kurtosis was higher than -2 (Nunnally & Bernstein 1994). The 72 items distribution in the current study was accepted as none of them departed from normality. Following the guideline of AMOS analysis (Arbuckle 2012), items (observed indicators) were enclosed in rectangles. Factors (latent variables) were enclosed in circles, whereas measurement errors were enclosed in ellipses. The structural model is identified by eleven (11) interrelated constructs, connected to each other with double-headed arrows representing a pattern of inter correlations. The single-headed arrows leading from the circles to the rectangles are regression paths representing the link between the factors and their respective set of observed variables; these coefficients represent factor loadings. Moreover, the single-headed arrows from ellipses to rectangles represent measurement error associated with observed variables.

Confirmatory Factor Analysis performed using the estimation method of the Maximum Likelihood over the variance-covariance matrix for the three-factor model through the AMOS-24 statistical package (Arbuckle 2012). To achieve model identification, regression coefficients of the error terms over the endogenous variables were fixed to 1. The CFA was performed in order to determine whether the hypothesised statistical model fits the actual data set. A number of 'goodness-of-fit' statistics were used on the three factor models derived by means of EFA. It is recommended to consider a variety of fit indices so that the weakness of a particular index is counteracted by the strength of another

(March *et al*. 1996). The commonly used fit statistics include the comparative fit index (CFI), goodness of fit index (GFI), and incremental fit index (IFI), all with a range 0–1 and with values greater than 0.90 indicating a good fit (Wang *et al*. 1996). The root means square error of approximation (RMSEA) of 0.05 or less indicates a 'close fit', while values of more than 0.1 justify rejecting the model (Browne & Cudeck 1989). The goodness-of-fit indices of the 72-item model were exceeding the 101 -item model in most of the indices (See Table 2).

Table 1: Cronbach's Alpha, the Reliability for the 2 Sub-Scales in 72 Items and the 101 Items

Model	Child related Stress	Parent Related Stress	Total Scale
101 items	47 items: 0.89	64 items: 0.92	90.5
72 items	35items: 0.91	37 items: 0.94	92.5

Table 2: Goodness-of-Fit Indices for Two Models

Model	X2*	d.f.*	*P**	X 2/d.f.*	GFI*	AGFI*	CFI*	IFI*	RMSEA
101 items									
	3486.7	1784	<0.1	1.954	0.87	0.94	0.92	0.79	0.07
72 items									
	2445.8	1202	<0.01	2.034	0.92	0.98	0.96	0.87	0.07

* x2/d.f.: relative chi-square.

GFI, Goodness of fit index; AGFI, Adjusted GFI; CFI, Comparative fit index; IFI, Increment fit index; RMSEA, root mean square error of approximation.

1.6.2.1.1 PSI Administration and Scoring

The PSI can be administered and scored by individuals without professional training, but interpretation of the measure should involve an individual with graduate-level training in tests and measurement. Most parents complete the questionnaire in about 20 minutes, though no time limit is given. Respondents are asked to read the instructions on the first page of the item booklet and then respond to each item by circling SA (strongly agree), A (agree), NS (not sure), D (disagree), or SD (strongly disagree) on the answer sheet. The respondent's answers are recorded on the scoring sheet via carbon transfer (if the EZ score form is used). The Child Domain subscale and the Parent Domain factor scores are calculated by summing the appropriate subscales within each domain. To obtain the Total Stress score, users sum the Child Domain score and the Parent Domain score. Percentile scores corresponding to each of the subscale raw scores are provided on the profile page. Percentile scores are derived from the frequency distribution of the normative sample. Subscale scores may be interpreted individually; however, scores are best considered in relation to each other. The Total Stress score can be used to gauge whether professional intervention might be warranted. Total Stress raw scores greater than 60% suggest a need for referral to an appropriate professional for consultation. The revised PSI consists of 72 items. It yields a Total Stress Score, plus scale scores for both Child and Parent Characteristics, which pinpoint sources of stress within the family. The child characteristics are measured in six subscales: Distractibility/Hyperactivity, Adaptability, Reinforces Parent, Demandingness, Mood, and Acceptability. The parent personality and situational variables component consists of seven subscales: Competence, Isolation, Attachment, Health, Role Restriction, Depression, and Spouse.

The study confirms that the highest type of Child-Related Stress among Parents with differently abled Children fell into Distractibility (PMS = 68.12), followed by Demandingness (PMS=66.50), Reinforces Parents (PMS=56.80), Adaptability (PMS = 59.22), Mood (PMS=46.05±12.27) and Acceptability (PMS = 42.86). The results show that the highest stress in Parent-Related Stress Scale of Parents with differently abled children was identified as Sense of Competence (66.20), Relation with the Spouse (PMS= 61.50), Restrict Role (PMS =56.35), Depression (PMS =54.29), Attachment (52.20), Parents Health (50.90), and Social Isolation (39.56). Among the two parameters of the Family Functioning sub-scale of Parenting Stress, the current study shows that Cohesion represented highest stress (PMS = 69.75) and it was statistically significant at the 1% level (p = 0.010***).

1.6.2.2 Family Adaptability and Cohesion Evaluation Scales III: To assess the stress in Family Functioning of Parents having differently abled children, Family Adaptability and Cohesion Evaluation Scales III (Olson, Bell, & Portner,1982) was also attached to the revised Parental Stress Index (PSI) scale. This scale composed of 20 items, each measured using a 5-point Likert scale, that covered parental perception of the degree of emotional cohesiveness and the degree of adaptability within the family, with higher scores indicating greater amounts of the descriptor. (Almost never=1, Once in a while=2, Sometimes=3, Frequently=4, and Almost always=5). FACES-III obtained enough internal/consistency values that are fairly high (r=0.68) as well as high test-retest reliability (r=0.80). The very low correlation between scales (r=0.03) provided that it has sufficient validity to utilise in measuring family functioning in Parents having differently abled children. Over 500 research projects had already adopted the FACES scales.

1.6.2.3 Stress in Social Support: To assess the stress in Social Support, an Interview Schedule had been administered, including two sub-domains: Helpfulness of the Network (Qs No-1- 7) and Size of Network (Qs.No.8-13). This Interview Schedule followed the following five points scoring system: 5=Strongly Agree, 4= Agree, 3=Undecided, 2= Disagree,1=Strongly Disagree. Family Adaptability of Parents raising children with disabilities fell into second position and it was statistically significant at the 5% level (p = 0.016***).

1.6.2.4 Stress in Daily Hassles: To identify the stress in Daily Hassles in Parents with differently abled children, an Interview Schedule had been administered including 15 items. This Interview Schedule followed the following five points scoring system: 5=Strongly Agree, 4= Agree, 3=Undecided, 2= Disagree,1=Strongly Disagree. In the current study, the Daily Hassles Sub-scale of Parental Stress among Parents with differently abled children was statistically highly significant at the 0.5% level (p = 0.004****). The irritating and annoying demands of everyday life, termed daily hassles, seem small in isolation but are cumulative in their impact (Kanner et al., 1981)

1.7 Statistical Procedure

To assess Predictors in Parental Stress in Parents with differently abled children, the investigators administered Hierarchical Multiple Regression Analysis. Hierarchical regression is a type of regression model in which the predictors are entered in blocks. Each block represents one step (or model). The order (or which predictor goes into which block) to enter predictors into the model is decided by the researcher, but should always be based on theory. In the study, Parenting Stress of Parents with differently abled children was considered as the Dependent Variable and four Blocks as Predictor Variables. AMOS -24 VERSION has been applied to find out the statistical scores rapidly. We know that Hierarchical Multiple Regression is a framework for model comparison rather than a statistical method.

1.8 Results and Discussion

In the present study, the investigators at first identified the levels of Parental Stress in Parents with differently abled children by using revised PSI scale (72 items) and another three subscales. Then, total stress scores of the Parents with differently abled children have been identified in order to make a relation to the predictors of Parental Stress.

Referring to Table No. 3, we can observe that the majority (54.5%) of parents raising differently abled children have experienced severe parental stress (total mean score 438.70 ±194.60, PS 72.60), 30.5 % have moderate parental stress (mean score 418.20±178.46, PS= 58.34) whereas only 12 % of parents have mild parental stress (total mean score is 398.04±165.00, PS =40.44). Roughly, 3% of the Parents with differently abled children do not have experienced stress in their parenting process (total mean score 230.60±78.28, PS = 31.60).

Table 3: Levels of Stress among Parents with Differently Abled Children

Levels of Stress	% of Parents with Differently Abled Children	Mean (Total sample)	SD (Total sample)	Percent Score
Severe	54.5%	438.70	194.60	72.60
Moderate	30.5%	418.20	178.46	58.34
Mild	12.0%	398.04	165.00	40.44
Nil	3.%	230.60	78.28	31.60

Referring to Table No. 4, we can see that Stress in Daily Hassles represents highest Percentage of Means (Total Mean 54.31, PMS = 66.08) among the five sub-scales of Parenting Stress in Parents with differently abled children, followed by stress in Family Functioning (Total Mean 82.21, PMS = 59.07), Parent-Related Stress (Total Mean =137.71, PMS= 56.40), stress related to lack of Social Support (Total Mean = 37.90, PMS = 54.62) and Child Related Stress (Total Mean = 128.87, PMS= 52.48). The Mean total of each sub-scales of the Parenting Stress Scale denotes the values inscribed into the total number of questions. Here the total number of questions as well as the procedure of inscribing values is different for each sub-scale of Parenting Stress. The lowest p-values falls into Stress in Daily Hassles and it is statistically significant at 0.5% level of significance (p = 0.004). Stress in Family Functioning is statistically significant at the 1% level (p = 0.012***). Parent-Related Stress of Parents raising children with disabilities are statistically significant at the 5% level of significance (p= 0.040**). Stress in Social Support of Parents with differently abled children are statistically significant at the 5% level of significance (0.028**). Lastly, Child-Related Stress of Parents with differently abled children is also statistically significant at the 5% level of significance (p = 0.049**).

Table 4: Mean Differences among the Five Types of Parental Stress Sub-Scales for Parents with Differently Abled Children

Sub-scales of Stress	Mean ± SD	Percent Score of Means (Total Sample)	p-values	Ascending order based on p-value and Percent Scores of Means
Child-Related Stress	128.87± 63.28	52.48	0.049**	5
Parent-Related Stress	137.71±68.30	56.40	0.040**	4
Family Functioning	82.81 ± 17.06	59.07	0.012***	2
Social Support	37.90 ± 11.70	54.62	0.028**	3
Daily Hassles	54.31 ± 28.41	66.08	0.004****	1
Total Stress Score	435.79 ± 187.75	58.90		

Statistically significant at **p= ≤.05(5%), ***p=≤.01(1%),*p=.005(0.5%)***

Hypothesis Testing: The results of the Hypothesis-1 have been discussed below:

1.8.1 BLOCK 1: Parents with Differently Abled Children's Characteristics

As revealed in Table No. 5, monthly income of the Parents with differently abled children is one of the important predictors controlling their stress in rearing a differently abled child, especially the following four categories of monthly income are very much significant components of parental stressors: below Rs. 3000, Rs 3001- 8000, Rs. 8001- 15000, and Rs. 1501-40000. When the scores on the Revised PSI are the dependent measure, four categories of Monthly income of the Parents with differently abled children are significant and accounted for 67% (below Rs. 3,000), 66% (Rs. 3001-8000), and 45% (Rs 8,000-15,000) of variance respectively. The fifth Row i.e. Parents with differently abled children, whose monthly income were more than Rs. 40,000 are acted as marginally significant predictor. Additional variability is accounted as .8 for Row 1; .12 for Row 2, and .14 for Row 3. No additional variability is present for the last two Rows. The total model is significant and accounted for 56% of the variance with a high t- value indicating that the effect size is statistically significant. For Row 4 (Rs. 15,001- 40,000), the t-value of 2.06 predicting that the observe difference is twice the size of the variability in the given data as mentioned above.

This result is supported by a study by Pipp-Siegel et al. (2002) and Gundogar & Uskun, (2010) establishing that financial problems is one of the most important factors that affected on Parents of Differently Abled Children. Quittner et al. (1990) also claims that low income of the family of the Parents having a differently abled child affecting their parental stress. Another study demands that Paternal Stress in Parents with differently abled children is directly depended upon their socioeconomic status (SES) and the number of individuals available for support, with more stress associated with lower SES and fewer sources of support (Lam & Mackenzie, 2002).

Table 5: Hierarchical Multiple Regression Analysis for Parental Stress in Parents with Differently Abled Children (Parenting Stress as the Dependent Variable and Monthly Income of the Parents entered as Predictor Variable)

Row	Monthly Income	df	$R^{2.(.57)}$	$R2_{change}$	F_{change}	β	*t (4.06)*
1	Below Rs 3000	1,17	.67	.8	12.90	.76	4.78***
2	Rs 3001-8000	1, 19	.66	.12	11.05	.88	4.26***
3	Rs 8001- 15000	1, 18	.45	.14	9.07	.66	4.01***
4	Rs 15001-40000	1, 16	.28	---	6.02	.22	2.06**
5	More than Rs 40000	1, 19	.26	---	4.40	.24	1.96*

As revealed in Table No. 6, the total model of educational level of Parents with differently abled children is accounted for 8% of variance with lower t-value (0.78) indicating non-significant at the 5% level. Although the following two categories of educational level of the Parents with differently abled children (i.e. illiterate and pre-primary) are moderately significant components of parental stressors. When the scores on the Revised PSI are the dependent measure, requisite three categories of educational level of the Parents with differently abled children (Row 3-5) are not significant and accounted at 5% and can't be recognised as an important stressor for the Parents with differently abled children. Additional variability is accounted as 09 % for Row 1; .03% for Row 2, and .05 % for Row 3. No addition variability is present for the last two Rows. The highest and lowest categories of educational level of the Parents with differently abled children as indicating by the t- values fall into illiterate (t=1.98*) and high school (t=0.60). This result is supported by Lederberg & Golbach (2002) establishing that Parental stress in Parents with differently abled children may be correlated to educational support (intervention services) only, not with their general educational level.). The result is slightly contradictory to the findings of Moh and Magiati (2012), who demands that parents from lower socio-educational background experienced a warning scenario of stress due to the impact of their children with disabilities.

Table 6: Hierarchical Multiple Regression Analysis for Parenting Stress in Parents with Differently Abled Children (Parenting Stress as the Dependent Variable and Educational Level of the Parents entered as Predictor Variable)

Row	**Educational Level of the Parents**	**df**	R^2***(.08)***	$R2_{change}$	F_{change}	**β**	***t (0.78)***
1	Illiterate	1,17	.11	.09	4.90	.08	1.98*
2	Pre-primary	1, 19	.09	.03	1.05	.06	1.78*
3	Primary	1, 18	.04	.05	0.04	.04	0.78
4	High School	1, 16	.00	.00	0.09	.04	0.08
5	Above high school	1,20	.00	.00	0.07	.05	0.72

As revealed in Table No.7, the following three categories of earning members in the family are very much significant components of parental stressors: both were employed (t=4.60), only mother was employed (t=4.26), and only father was employed (t=3.08) at 1% level of significance. When the scores on the Revised PSI are the dependent measure, one category of monthly income of the Parents with differently abled children i.e. both father and mother were employed are moderately significant and accounted for 35% of variance with no additional variance (t value = 1.98*). Additional variability is also accounted as .10 for Row 1; and .14 for Row 2 respectively. No addition variability is present for the last two Rows. The Row 3 represents the t- value of 1.98 predicting that the observe difference is near about twice the size of the variability in the given data.

Table 7: Hierarchical Multiple Regression Analysis for Parenting Stress in Parents with Differently Abled Children (Parenting Stress as the Dependent Variable and No. of Earning Member(s) in the Family entered as Predictor Variable)

Row	No. of Earning Member(s)in the Family	df	*R2 (.50)*	*$R2_{change}$*	F_{change}	β	*t (2.76**)*
1	Only Father is employed	1, 18	.36	.10	10.04	.32	3.08***
2	Only Mother is employed	1, 19	.66	.14	9.0	.48	4.26***
3	Both Father and Mother are employed	1, 17	.35	--	7.07	.26	1.98**
4	Both are unemployed	1, 16	.42	--	4.02	.68	4.60**

As revealed in table 8, the total model of type of family of Parents with differently abled children is significant at the 5 % level with 24% of variance and is recognized as an important source of stressor in the present study. For Row 1, Nuclear family is moderately significant and accounted for 36% of variance with .06% additional variance (t value = 2.28*). For Row 2 (joint family), the R^2 variance is significantly lower than the nuclear family estimated as 12% with 8% additional variance. Additional variability is accounted highest for Row 4 (Grandparent family) as 12% respectively indicating that stressor elements are come from another member in the family of the Parents with differently abled children.

Table 8: Hierarchical Multiple Regression Analysis for Parenting Stress in Parents with Disabled Children (Parenting Stress as the Dependent Variable and Type of Family entered as Predictor Variable)

Row	Type of the Family	df	*R2(.24)*	*$R2_{change}$*	F_{change}	β	*t (2.08**)*
1	Nuclear	1,19	.36	.06	12.0	.34	2.28***
2	Joint Family	1, 20	.12	.8	7.0	.22	1.76
3	Grandparent Family	1, 17	.18	.12	9.0	.26	1.80

As illustrated in Table No.9, the total model of type of marriage among Parents with differently abled children is not an important predictor of parental stress and accounted for only 12 % of variance with lower t- value (1.12). Only one category of type of marriage of the Parents with differently abled children (i.e. others) is an important predictor controlling their stress in rearing a differently abled child and another two categories of marriage are less important and they are not significant at the 5% level as indicating by their t- values (below 2.0). When the scores on the Revised PSI are the dependent measure, one category of marriage, especially rape marriage is moderately significant and accounted for 14% of variance with 12 % of additional variance (t value = 1.88*). For Row 1 (love marriage), the R^2 variance is slightly higher than the arranged marriage estimated as 10% and 7% respectively. Additional variability is accounted highest for Row 3 (other type of marriage) as 22% respectively indicating that stressor elements are moderately present at 5% level of significance.

Table 9: Hierarchical Multiple Regression Analysis for Parenting Stress in Parents with Differently Abled Children (Parenting Stress as the Dependent Variable and Type of Marriage entered as Predictor Variable)

Row	Type of Marriage	df	*R2(.12)*	$R2_{change}$	F_{change}	B	*t (1.12)*
1	Love Marriage	1,19	.10	.06	8.0	.24	1.20
2	Arranged Marriage	1, 20	.07	.8	0.08	.22	1.26
3	Others	1, 17	.22	.12	8.0	.13	1.88*

As revealed in Table 10, the total model of poor physical or mental health of the Parents with differently abled children is significant and accounted for 51% of the variance with a high t- value (4.67***) indicating that the effect size is statistically significant at the 1 %. Level. When the scores on the Revised PSI are the dependent measure, one category of poor physical or mental health of the Parents with differently abled children (i.e. both fathers and mothers of the differently abled children occupied poor physical or mental health) is highly significant and accounted for 53% of variance with additional 16% of variance. This result is slightly contradicted with Seligman & Darling (1997) who demand that mothers with a spouse with a poor physical or mental health reports significantly more stress.

Table 10: Hierarchical Multiple Regression Analysis for Parenting Stress in Parents with Disabled Children (Parenting Stress as the Dependent Variable and Poor Mental / Physical Health of the Parents entered as Predictor Variable)

Row	Poor Physical /Mental Health of the Parents	df	R2 (.51)	$R2_{change}$	F_{change}	β	t (4.67***)
1	Mother of the Differently Abled Child	1,19	.36	.10	12.0	.36	2.28***
2	Father of the Differently Abled Child	1, 20	.32	.8	11.0	.46	2.36**
3	Both Mother and Father of the Differently Abled Child	1, 17	.53	.16	18.0	.58	5.20***
4	None	1,17	.8	0.0	3.27	.08	.78

Referring to Figure 11, one category of sexual-relationship (i.e. unsatisfied) of the Parents with differently abled - children is moderately significant at 5% and accounted for 38% of variance with greater t-value (2.06). Another category of response i.e. ‘ not so bad’ is also slightly significant at the 5%. level. The total model of sexual-relationship of Parents with differently abled children is moderately significant at 5%, and accounted for 26% of variance. Sexual-relationship among the Parents with differently abled children is one of the vital concerns that may affect their married life. Most of the fathers blamed their spouse that their wives were responsible for creating the horrible situation. Sexually unsatisfaction leads to marital conflicts as revealed in the present study. If spousal relationship was unhealthy or violent, it may affect on the stress levels of the parents raising children with disabilities (cf. Foronda, 2000; Yeo and Lu, 2012).

Table 11: Hierarchical Multiple Regression Analysis for Parenting Stress in Parents with Differently Abled Children (Parenting Stress as the Dependent Variable and Sexual-Relationship of the Parents entered as Predictor Variable)

Row	*Sexual-Relationship*	*df*	*R^2(.26)*	*R^2_{change}*	*F_{change}*	*β*	*t (1.98)*
1	Satisfied	1,17	.22	.6	6.30	.16	1.66
2	Satisfied completely	1, 19	.10	.13	4.50	.12	1.68
3	Unsatisfied	1, 17	.38	.7	8.80	.11	2.06**
4	Completely Unsatisfied	1, 17	.17	.8	4.90	.18	1.32
5	Not so bad	1, 18	.24	--	7.56	.14	1.98**

Referring to Table no. 12, it is revealed that the total model of the thinking about the future of the differently abled-children is an important predictor of parental stress and accounted for 58 % of variance with higher t- value (5.56 ***) at the 1 % level of significance. This conclusion is supported by the value of beta and F change for all components of the sample under taken in the present study. As illustrated in Table 12, only two categories of Parents' perception regarding the future of disabled children (i.e. Horrible & Extremely horrible) are significant predictors affecting their stress. Two categories of Parents' perception about the future of their differently abled- children are highly significant and accounted for 58% & 48% of variance respectively (t-values for Row 3 =5.68, for Row 4 =4.98). The Parents engaging in less prestigious occupations may have accounted for lower expectations of their differently abled- children and may be accustomed to feelings of helplessness and frustration (Lewis, 1998; Kumar, 2010).

Table 12: Hierarchical Multiple Regression Analysis for Parenting Stress in Parents with Differently Children (Parenting Stress as the Dependent Variable and Thinking About the Future of the Differently Abled Children entered as Predictor Variable)

Row	Future of the Differently Abled- Children	df	R^2(.58)	R^2_{change}	F_{change}	β	T (5.56)
1	Prosperous	1,17	.05	0.00	0.02	.08	0.26
2	Not so bad	1, 19	.06	0.00	0.04	.06	0.18
3	Horrible	1, 17	.58	.6	18..93	.58	5.68***
4	Extremely horrible	1,19	.48	0.00	14.56	.46	4.98***

From the above discussion on block-1, the null hypotheses are accepted with respected to two predictors, namely type of marriage and education level of the Parents with differently abled-children and these are not statistically significant at the 5% level. On the other hand, the null hypotheses are rejected with respect to three predictors (thinking about the future of the differently abled-children, poor physical or mental health of Parents & monthly income of Parents) and these are highly significant at the 0.1% level. The null hypotheses are also rejected with respect to another two predictor variables such as no. of earning member(s) in the family and type of family as these are moderately significant at the 5%. level of significance.

1.8.2 BLOCK -2: Differently Abled Children's Characteristics

As illustrated in Table 13, the total model of present age of the differently abled-children is also an important predictor of parental stress and accounted for 22 % of variance with moderate t- value (2.56 **) at 5 % level of significance (see beta and F change). Only three categories of the age of the differently abled children (i.e. 8-12 years, 13-15 years, 16-19 years) are significant predictors controlling their stress in rearing a differently abled child and another one category of age of the differently children (i.e. 20 years and above) is less important and not significant at 5%, indicating by their t-value (below 2.0). When the scores on the Revised PSI are the dependent measure, one category i.e. 8-12 years' age group of the differently abled children is highly significant and accounted for 26% of variance with 6% of additional

variance (t value = 3.36**). The Rows 2 and 3 are also significant at 5% with 12% and 8% of variance respectively. Additional variability is also accounted for Rows 2 and 3 as 6% and 0.8% respectively.

Table 13: Hierarchical Multiple Regression Analysis for Parenting Stress in Parents with Differently Abled Children (Parenting Stress as Dependent Variable and Present Age of Differently Abled-Children (Block -2) entered as Predictor Variable

Row	Present Age of the Differently Abled-Children	df	R^2(.22)	R^2_{change}	F_{change}	β	t (2.56)
1	8-12 yrs	1,17	.26	0.6	9.22	.17	3.36**
2	13-15yrs	1, 19	.12	0.6	7.28	.10	2.80**
3	16-19yrs	1, 17	.8	.08	8.93	.13	1.98*
4	20 yrs and above	1,17	.06	0.0	2.90	.8	.98

Table 14 represents the results of Multiple Regression Analysis, exhibiting that the time of diagnosing disability is a significant predictor of parental stress in rearing a differently abled-child. When the scores on the Revised PSI are the dependent measure, all categories of the time of diagnosing the disabilities in the children are moderately significant and accounted for 26% of variance (t-value =2.68**). It may be noted that among the five categorical variables Row 1 (at the time of birth) is significant at 5% level and accounted for 48% of variance and 24% of additional variance (t = 3.68).

Table 14: Hierarchical Multiple Regression Analysis for Parenting Stress in Parents with Differently Abled Children (Parenting Stress as Dependent Variable and Time when Disability Diagnosed (Block -2) entered as Predictor variable

Row	Time when Disability Diagnosed	df	$R^{2(.26)}$	R^2_{change}	F_{change}	β	t (2.68)
1	At the time of birth	1,19	.48	.24	12.0	.66	3.68***
2	Before 6 month	1, 20	.37	.11	7.0	.42	3.21**
3	6-12 month	1, 17	.23	.09	18.0	.38	2.20**
4	13-36 month	1,17	.23	.00	3.27	.38	2.29**
5	After 36 month	1,19	.23	.00	3.09	.33	2.30**

As illustrated in Table 15, the gender is a significant predictor of parental stress in rearing a differently abled child. When the scores on the Revised PSI are the dependent measure, female gender (differently abled child) is moderately significant and accounted for 46% of variance with no additional variance (t-value =2.36**). The Row 1 is also significant at near about 5% level with 12 % of variance. The total modal of gender of the differently abled children is accounted for 32% of variance, indicating that it should be considered as a predictor variable for parenting stress.

Table 15: Hierarchical Multiple Regression Analysis for Parenting Stress in Parents with Differently Abled Children (Parenting Stress as Dependent Variable and Gender of the Children (Block -2) entered as Predictor Variable

Row	Gender of the Differently Abled- Children	df	R^2(.32)	R^2_{change}	F_{change}	β	T (2.06)
1	Male	1,19	.12	.00	2.96	.36	1.88*
2	Female	1,17	.46	.00	9.08	.46	2.36**

As revealed in Table 16, two categories of birth order of the differently abled children i.e. (Rows 1 & 4) are moderately significant at the 5 % level. When the scores on the Revised PSI are the dependent measure, the total model of the birth order of the differently abled children is moderately significant at 5 % and accounted for 22% of variance (t-value =2.06**). The Rows 2 & 3 are not also considered as significant predictors of parental stress at the 5% level. Mothers of Female Children with Intellectual disabilities and autism experience the most stress (Pal & Choudhury, 1998; Lam & Mackenzie, 2002, Upadhyaya & Havalappanavar, 2008).

Table 16: Hierarchical Multiple Regression Analysis (HMRA) for Parenting Stress in Parents with Differently Abled Children (Parenting Stress as the Dependent Variable and Birth Order of the Differently Abled Children (Block -2) entered as Predictor Variable

Row	Birth Order of the Differently Abled-Child	df	R^2 (.22)	R^2_{change}	F_{change}	β	t (2.06)
1	One	1,19	24	.6	12.0	.66	2.01**
2	Two	1, 17	13	.00	11.0	.42	0.98
3	Three	1, 19	.18	.00	8.0	.38	.78
4	More than three	1,17	.21	.16	3.27	.38	2.29**

As revealed in Table 17, the total model of the additional handicap of the differently abled children is significant at the 5% level and accounted for 38% of variance (t-value =3.43 **). The Rows 2 & 3 are not considered as significant predictors of parental stress at the 5% level of significance.

Table 17: Hierarchical Multiple Regression Analysis for Parenting Stress in Parents with Differently Abled Children (Parenting Stress as Dependent Variable and Additional Handicap in the Differently Abled Children (Block -2) entered as Predictor Variable

Row	Additional Handicap	df	R^2 (.38)	R^2_{change}	F_{change}	β	t (3.43)
1	Yes	1,17	.46	.36	9.0***	.46	4.28***
2	No	1, 19	.09	.00	0.09	.16	.98
3	Sometimes	1, 17	.1	.16	4.78**	.28	1.78

From the above discussion on Block-2, (See Table 13 to 17), the null-hypotheses were rejected with reference to age of the differently abled children, time of diagnosing the disabilities, gender of the differently abled children, birth order of the differently abled children, and additional handicap in the differently abled- child. Additional handicap in the differently abled children is considered as the highest type of parental stressor (t= 3.43) among the differently abled children's characteristics as revealed in the study.

1.8.3 BLOCK 3: Family Functioning of the Parents with Differently Abled Children

As illustrated in Table No.18, the total model of family functioning of the parents with differently abled children is an important predictor of parental stress and accounted for 48 % of variance with high t-value (4.68 ***) at the 1 % level of significance (also check Beta values and F change). The component of Adaptability of the Family Functioning of parents with differently abled children is accounted for 51% of variance with 12% of additional variance and statistically significant at the 5% level. The t-value of the Cohesion of the parents with differently abled children is estimated as 4.68 indicating a highly significant predictor variable at the 1 % level of significance for the parents with differently abled children. Thus the null hypothesis is rejected and the family functioning of parents with differently abled children is an important predictor of parental stress.

This result is similar to the findings of Abeduto (2004) who also demands that family functions in respond to the child's disability affects the level of stress in parents. Oliver & Innocenti (2001) recognise Family Functioning of the parents with differently abled-children as a stronger predictor of their parental stress. Some studies indicate that raising a Child with disability can have negative impact on family's relationships with others members (Cole, 1986; Martin & Colbert, 1997). Warfield et al. (1999) demand that when Mothers of Children with developmental disabilities perceive support from within the family they reported lower levels of stress. Another study also supports that raising a differently abled- child significantly increases parents' difficulties with maintaining a cohesive relationship (Bristol et al, 1988).

Table 18: Hierarchical Multiple Regression Analysis for Parenting Stress in the Parents with Differently Abled Children (Parenting Stress as the Dependent Variable and Family Functioning (Block -3) entered as Predictor Variable

Family Functioning	df	R2(.48)	$R2_{change}$	F_{change}	β	t (4.68)
Adaptability	1,19	.51	.12	15.20***	.61	2.88**
Cohesion	1,18	.38	.14	10.15***	.36	4.68***

1.8.4 BLOCK 4: Social Functioning of the Parents with Differently Abled Children

As revealed in Table 19, the total model of Social functioning of the parents with differently abled children is also an important predictor of parental stress and accounted for 38 % of variance with greater t-value (3.28 ***) at the 5 % level of significance. So the null hypothesis is rejected. The t-value of the size of network of the parents with differently abled children is estimated as 1.27 indicating a non-significant predictor variable at 5 % level of significance. Another predictor variable i.e. helpfulness is highly significant at the 1% level of significance with 58% of variance and also an important predictor of stress for the parents with differently abled children. Parents report higher levels of stress when they have perceived lack of support while talking to doctors or other professionals, or when they have trouble in dealing with relatives (Perry 1989, Jones and Passey 2004, Thompson 2006). Both Brown (2003) and Pal (2005) report that lack of physical support might be a predictor of Parental stress in Parents with differently abled-children. According to Lederberg & Golbach (2002), mothers who have less contact with family and friends may have experienced grater stress. This results fully similar to the findings of Moh and Magiati, 2012; Yeo and Lu, 2012; Xue et al., 2014; Liwag, 1989; Foronda, 2000; Wahyuni, 2013; Foo et al., 2014; Santoso et al., 2015; Chong and Kua, 2016 , who consider that social support is a significant predictor of parenting stress for those parents.

Table 19: Hierarchical Multiple Regression Analysis for Parenting Stress in Parents with Differently Abled Children (Parenting Stress as Dependent Variable and Social Functioning (Block -4) entered as Predictor Variable

Social Functioning	df	R^2(.38)	R^2_{change}	F_{change}	β	t (3.21)
Size of Network	1,20	.21	.9	2.96	.07	1.27
Helpfulness	1,18	.58	.25	9.96***	.86	4.08**

1.10 Conclusion

The results of the current study focus on the significance of Appraisal Theory of Stress (Lazarus & Folkman, 1984) as mentioned in the conceptual framework of the study. Siddiqui (2014) rightly claimed that no single factor affects the stress level of Parents with differently abled-children. The important predictors of stress in parents of differently abled-children as revealed in the study are thinking about the future of their differently abled-children, poor physical or mental health of parents & monthly income of Parentsand these are highly significant at the 0.1% level. Both the number of earning member(s) in the family and type of family are moderately significant at the 5%. level of significance. Age of the differently abled-children, time of diagnosing the disabilities, gender of the differently abled children, birth order of the differently abled children, additional handicap, family functioning and lastly social support are also statistically significant predictors of stress among the parents with differently abled-children.

1.11 Delimitations

This study only includes such type of Parents who had Children with ID, VI,HI and ASD. Results may differ among Parents of Children with Drown Syndrome, Multiple Disabilities, Physical Disabilities etc.

Single parents of differently abled children were excluded from the study as different studies have already identified their severity of stress level and useful coping strategies.

Due to the complex nature of Stratified Proportional Simple Random technique, sample characteristics for comparison groups (i.e., parents having children with ID, VI, HI and Autism) could not be precisely matched to minimize secondary influences from demographical variables.

Null Hypothesis Significance Testing (NHST) has been criticized for using arbitrary cut-off levels. Many of the null hypothesis tested in the research literature is false only in the statistical sense of the word, but as a practical matter could be treated as if they were true with little likelihood of any negative consequences. Most of the experts agreed with the fact that it is the size and direction of observed differences that ought to be reported not only p-values (level of significance). McKeachie (1997) reported that effect sizes are mostly useful for directing toward decisions with some immediate practical consequences. Nickerson (2000) rightly added that the researcher should not be bounded by the clain of $\alpha = .05$.

1.12 Suggestions

The following suggestions are given on the basis of objectives of the study as well as well on the basis of the problems realised by Parents with differently abled children:

High levels of stress is found with the insecure attachment and childhood behaviour problems (Abidin,Jenkins and McGaughy, 1992). Family Counselling Programme need to be handled carefully with special emphasis on identifying the problems of all family members. Parents as well as all family members may be aware of the merits and demerits of disability in the family. Parents may be encouraged of maintaining an equality in caring for the child with disability without any gender bias. Focus should be given on Problem-Focused Coping strategies and various ways in solving problem and family conflicts' resolution rather than exchanging blame between Parents for insufficient performance in caring the child with disability.

In order to minimise the 'internal stress', Parents with differently abled children must learn how to develop realistic expectations about their life and how to recognize when negative self-talk defeats effective coping. Father of the differently abled children must be sympathetic towards his wife as she is experiencing more stress as revealed in the study. They must boost their own self-confidence by noting and using personal strengths and talents. In addition, Parents with differently abled children can identify and list their own self-defeating assumptions and think of alternative messages. They may renounce love, affection, and approval from Children as needs rather than bonuses. They may be encouraged to see the positive sides of stress. They may control anger by controlling wishes and try to use to it constructively. Different Family magazines may be read time by time in to understand the significance of marriage life

and family planning. Positive thinking by daily affirmations need to ushered. Developing a positive belief can control their destiny. They should be healthily selfish, free from needing outside approval. They may try to develop a support system by sharing honestly their feelings of frustration and anger. They may cope up with a situation in the presence of imperfection. They must learn to tolerate change as children change often.

Both Parents and differently abled children should change their moods and feelings. Dealing with external forces may lead to 'external stress' in the Parents with differently abled children, that is very difficult to overcome sometimes. Neighbours, friends, and relatives don't understand why such a normal-acting man /women behave cruelly towards them. Teachers frequently don't fully comprehend the ramifications of a differently abled child's problem. Parents are called upon by the school to help make decisions about their differently abled child's school program. Parents often feel helpless as the child's advocate because of their own lack of understanding. External Stress Factors may be resulted from dealing with school about child's placement or program, coping with difficult child behaviours, helping siblings understand the problems associated with disabilities, educating neighbours and relatives about the child's problems, getting child in right school, helping child with homework, working with spouse on child management and financial pressures in the family. The following guidelines may be helpful for the Parents with differently abled children to overcome their 'external stress':

As external stressors are situational by nature, and often involve relationships with others, Parents with differently abled children are advised to develop assertiveness skills. Problem-solving techniques, time management, and goal setting are helpful while dealing with external stressors. Since coping with a differently abled child is so emotionally draining, Parents are encouraged to develop intimacy skills as well as a support system.

They may learn about their differently abled child's problems and needs so that they can be an active participant in meetings with school personnel. The schools may encourage the Parents to offer their suggestions to teacher and coaches. In order to replenish energy, Parents with differently abled children need to be sure they get sufficient rest, eat well balanced meals, and exercise vigorously. They may practice meditation or relaxation techniques when they feel stressed, anxious, or fatigued. Physiological Stressors can be minimised with the help of proper diet, exercise, rest and recreation.

Additional research is also invited to verify the efficacy of theoretical assumptions of Parental support system in the context of Parental stress phenomena. This research may tone up the present study's implications to increase support, both informal and formal, which will be provided to Parents of Children with disabilities.

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