

Factors Influencing Sense of Coherence and Self-Efficacy among the Parents of Children with Autism Spectrum Disorder: The Underlying Role of Hope

Humera Iqbal, Muhammad Akram Riaz, Urwah Ali and Attiqa Mumraiz
Patna University, Patna, Bihar

Parenting a child with autism spectrum disorder is a challenging job for parents. Most of the research studies were more concerned about the possible causes of autism spectrum disorder and intervention plans for its management. Factors that influence their stress, sense of coherence self-efficacy and the role of hope among such parents are underrepresented in the literature. The purpose of current study is to examine the factors that influence the sense of coherence and self-efficacy among parents of children with autism spectrum disorder. For this purpose data was collected from 200 parents (100 fathers, 100 mothers) of children with autism spectrum disorder from Rawalpindi and Islamabad. The current study was based on cross sectional survey design. Self-administered and standardized questionnaires were used. Findings of the study revealed that parental stress has negative effect on sense of coherence, and self-efficacy of parents. Coping strategies mediated the relationship between parental stress and sense of coherence and between parental stress and self-efficacy. The moderating effect of hope was also observed at low level in the relationship between parental stress with sense of coherence and at high level with self-efficacy. Moreover, parental stress is observed as similar for both parents and non-significant impact of gender were observed on parental stress. Findings of the study have implications in understanding of parental problems and are management b utilizing coping strategies and hope during parenting practices.

Keywords: Parental stress, coping strategies, sense of coherence, self-efficacy

Birth of a child is a significant event in both parent's life which introduce them to their parenting role and its obligations. Both parents need to change and adjust to the requirements for the normal development of their offspring. Bringing up a child till he/she becomes independent is a challenge for parents who demand an extensive hard work as well as analysis of their fortitude, persistence and aptitude. Bringing up a child with disability is more challenging for the parents. Normally experienced disabilities are mental retardation, explicit learning issue and autism spectrum disorder among others (Sinha et al., 2016). Autism spectrum disorder (ASD) falls into the category of neurodevelopment disorders which starts at pre-schooling age and is described by intermittent issues in correspondence and social connection, presence of generalized examples of intrigue, activities, and practices, as per the American Psychiatric Association

(Furrukh & Anjum, 2020). ASD having a long lasting condition involves incessant impedance in individuals' jargon, perspectives and social abilities that add to stressors for essential parental figures (Zeng et al., 2020).

The numeric of minors with ASD is accelerating day by day but its causes are still unknown. The assessed predominance of ASD is one out of 88. ASD are almost multiple times more common among boys than girls (Hall & Graff, 2012). As per the report published by the Pakistan Autism Society (PAS), based on the research of developmental bodies of South Asia, in Pakistan, there are 350,000 children with ASD (Furrukh & Anjum, 2020). Parenthood is a demanding task but parenting of a child with ASD make this responsibility even more challenging and demanding (Mussadiq & Inagateka, 2020). The unveiling of diagnosis and understanding of the ASD was accounted for by the guardians as

an exceptionally torrid moment. The diagnosis of the child with ASD inferred the departure of a daily existence venture as guardians and of things to come they had envisioned with their youngster. The diagnosis delivered sentiments of stun, refusal, dread/nervousness, blame, outrage, bitterness, vulnerability, and misery. Dread and tension principally concern the future advancement of their youngsters and their destiny when they are no longer there to care for them, stressing whether they will be fit for typical autonomous life (Fernandez-Alcántara et al., 2016).

Mediating Role of Coping Strategies

Utilization of effective coping strategies has been distinguished as a significant component of overseeing parental stress and enhancing well-being and can be portrayed into four categories of adapting procedures utilized by parents of children with ASD. The previous literature specified elevated level of stress in parents of children with autism. Coping concerned with emotions was speculated for stress in the parents having children with autism and Down syndrome (Neece et al., 2012). For parents of children with autism, overall parental stress was predicted by the level of education and emotion-oriented coping style. Sense of coherence and self-efficacy among parents outline their cognitive process to analyze and resolve their stress. Coping influence the aspects of sense of coherence and self-efficacy of parents of autistic children by deal with social and behavioral issues of children inversely highlights the feelings of guilt among parents as well as the magnitude of their stress (Batool & Khurshid, 2015). In order to get the clearer picture of interconnection of coping strategies between parental stresses, sense of coherence and self-efficacy, many studies shown parental understanding of stress related factors that impact parental practices while coping minimize that stress related factors and thus enhancing prospects to increase sense of coherence and self-efficacy in them (Furman et al., 2018; Neece et al., 2012). Previous studies also revealed that coping strategies may have mediating effect between the relationship between parental stress with sense of coherence and self-efficacy (Dardas & Ahmad, 2015; Furman et al., 2018).

Moderating Role of Hope

Parent of every child possesses some concerns and expectations for their child but being a parent of an autistic child make their concerns more serious and severe and they have very little hope regarding to their child's future. Literature reveals that the hope changes the future and present perspectives of people's life and its stressors. Hope has an ability to minimize the distressing effect of stressful circumstances (Einav & Margalit, 2020). A similar research on hope as a psychological resilience factor included mothers and fathers of children with disability revealed that for mothers, revealed that lower levels of hope (agency and pathways) and more child behavior problems predicted maternal depression and indicate that higher hope level in mothers was negatively correlated with depression (Lloyd & Hastings, 2009). The purpose of the present study was to examine the mediating role of coping strategies adopted by parents to raise their children with ASD. The prerequisite of upbringing an ASD child is demanding for parents as they have to adjust themselves with the continuous changing demands of parenting and ways of their coping with those changing parenting challenges. Hope is a galvanizer of action, which brings up an intriguing issue - specifically, regardless of whether both the substance and cycle of hope change as one's circumstance unfold (Edara, 2015). As a result, hope frequently consolidates yearning for something better with the capability to minimize the level of parental stress and results in favorable outcomes in enhancing sense of coherence and self-efficacy among parents (Einav & Margalit, 2020; Prataet al., 2019).

The Role of Gender

Research indicates that while there are shared characteristics across moms and fathers, there are additionally contrasts in their revealed utilization of coping strategies. Pepperell et al. (2016) revealed the significance of awareness of ASD among both parents and this is presented distinctively in their offspring and this appeared to be to empower them to comprehend behavior, anticipating problems and generate structure in their homes. The findings

of mothers utilizing comparable measures of problem-focused strategies (rather than a reduced amount in the preceding research) may reflect may replicate the prerequisite for altered coping strategies to deal with the novel needs emerging from caring about a young child with ASD associated with caregiving for adults with exceptional prerequisites as presented in the previous studies. It may be that as children grow and develop their prerequisites and their parents' prerequisites altered and the manner in which parents adapt likewise advances as new difficulties are experienced (ZaidmanZait et al., 2018). While mothers give the impression to have more understanding into their peculiar emotional practice of nurturing a child with ASD, both parents emphasized the prerequisite to have time for them to invigorate mentally in order to reciprocate to their child's needs. While mothers frequently brought up the utilization of numerous strategies focused on problem as well as emotions. Fathers mostly stated utilization of strategies that are specifically focused on problem. In spite of the fact these variances may reveal the obligation for parents to draw a more extensive scope of strategies; it is also possible that fathers were not as eager to reveal their utilization of emotion-focused and active-avoidant coping strategies as were mothers (Miranda et al., 2019; ZaidmanZait et al., 2018).

Hypotheses

1. Parental stress will effect on sense of coherence and self-efficacy among parents of children with ASD.

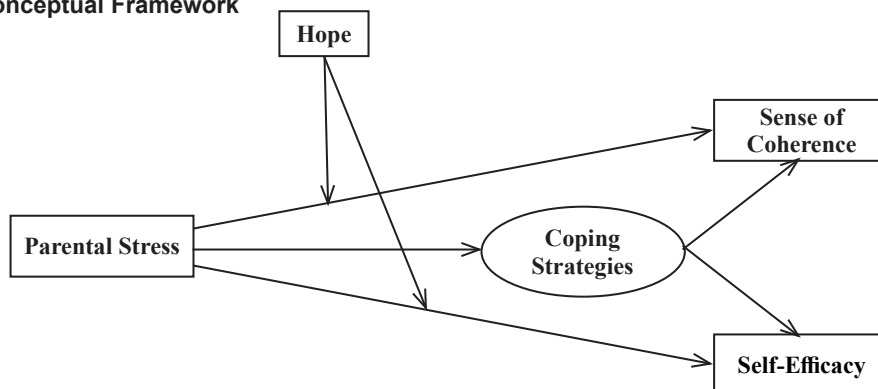
2. Coping strategies will mediate the relationship between parental stress and sense of coherence among the parents of children with ASD.
3. Coping strategies will mediate the relationship between parental stress and self-efficacy among the parents of children with ASD.
4. Hope will moderate the relationship between parental stress and sense of coherence among the parents of children with ASD.
5. Hope will moderate the relationship between parental stress and self-efficacy among the parents of children with ASD.
6. Levels of parental stress will be higher in mothers as compared to the fathers of children with ASD.

Method

Participants

The current study was based upon cross sectional survey design and used quantitative approach. In the present study, sample of 200 parents with age ranged from 26-45 was collected from autism resource centers, homes and offices located in Rawalpindi and Islamabad. A sample of parents was further divided into equal representation of both genders (fathers= 50%, mothers = 50%) who have children with autism spectrum disorder between the ages 3-12 years. Data was collected through snowball and purposive sampling technique. Parents with at

Conceptual Framework



least 12 years of education were included in the study. Parents, whose children with ASD were enrolled in the Autism Centers for interventions or therapy or they were taking online sessions for at least six months and more, were ensured as inclusion criteria. A parent who was living separately or whose spouses were living abroad or in other cities was taken as exclusion criteria. Moreover, parents whose children had already reached to puberty were also excluded. Parents of children with other comorbid disorders were also ensured as exclusion. Participants consisted of only those parents who were having education above the graduate level. Participants belonged to middle class, professionals and also participated willingly. So, these parents were over-represented in this study.

Measures

In the first phase of the study the Childhood Autism Rating Scale (2nd ed.) was used for diagnosis of ASD with the help of clinical psychologist present in autism resource centers. In the second phase parental stress scale, sense of coherence scale, general self-efficacy scale, the family crisis oriented personal evaluation scales and Herth Hope Scale were used. The scales include; Childhood Autism Rating Scale (2nd ed.) (Van Bourgondien et al., 2010) was used to identify children with autism and determine symptom severity through quantifiable ratings. The scale consisted of 15 items. It is 7 point scale and rated on 1-7 Likert scale with 1 = strongly disagree to 7 = strongly agree. The reliability of scale was .93. Parental Stress Scale (Berry & Jones, 1995) was used to measure parental stress among participants. It is a self-report scale and consists of 18 items. It is 5 point scale with 1 = strongly disagree to 5 = strongly agree. The reliability of scale was .84.

Orientation to Life Questionnaire (Antovsky, 1987) was used to measure sense of coherence. It is self-report scale and consists of 13 items. It is 7 point scale and items were scored from 1 weak feelings to 7 points were indicator of strong feelings. The internal consistent reliability of the scale was .80. General Self-Efficacy Scale (Schwarzer & Jerusalem, 1995) was used to assess a sense of perceived self-efficacy among participants. It is a self-report scale and

consists of 10 items. Responses were made on 4 points scale with 1 = not at all true to 4 = exactly true. The reliability of scale ranged .76 to .90. The Family Crisis Oriented Personal Evaluation Scales (McCubbin et al., 1981) was used to identify the coping strategies among participants. It is a self-administered tool and consists of 30 items. Responses were made on 5 point Likert scale ranging from strongly disagree = 1 to strongly agree = 5. The reliability of scale was .89. Herth Hope Scale (Herth, 1991) was used to assess the aspects of hope. It is 4 point rating scale ranges from 0-3 with 0 indicates that statement never applies to the respondent to often applies = 3. The reliability of scale was .90.

Procedure

Permission for using instruments was taken from respective authors. Ethical approval was taken from research committee. For data collection participants were approached at different autism resource centers and schools of special education located in Islamabad and Rawalpindi. Before the administration of questionnaires participants were informed about the purpose of present study. Only willing participants were included in the study. All the relevant questionnaires were compiled in the form of booklet along with consent form and demographic data sheet. Brief instructions were given to the participants before administration of questionnaires. Participants were asked to read the instructions of each scale carefully and provide their honest response while rating the statements. On average participants took 20 to 25 minutes to record their responses on questionnaires. After the completion, booklets were inspected for missing responses. In the end, participants were thanked for their cooperation, patience and participation in study as well.

Results

Statistical Package for Social Sciences (IBM-SPSS, Version-21) and AMOS (IBM-SPSS, Version-10) were used to analyze data of main study. Reliability analysis of the study instruments was conducted to find alpha reliability coefficients. Psychometric properties were done to analyze the trend of the data. To find relationship between variables, bivariate

Table 1. Psychometric Properties for all Study Variables

Variables	M	SD	Range	α	1	2	3	4	5
Parental Stress	65.36	7.63	42-78	.72	--				
Coping Strategies	102.60	10.26	71-129	.78	.38**	--			
Hope	106.55	4.99	88-120	.91	.35**	.30**	--		
Sense of Coherence	60.73	14.83	32-91	.75	-.34**	.35**	.26**	--	
General Self-Efficacy	53.17	9.14	23-76	.76	.45**	.19*	.22*	.46**	--

*p<.05, **p<.01

Table 2. Comparison of Fit Indices in Default and Modified Model across Mediation

Model	X ²			RMSEA		AIC	BIC
	Value	df	p	Value	95% CI		
Default Model	57.83	3	.000	.07	[.02, .04]	78.18	79.99
Modified Model	24.69	3	.004	.04	[.04, .06]	40.00	42.12

Note. AIC and BIC differences are relative to the modified model. RMSEA = root-mean-square error of approximation, CI = Confidence Interval.

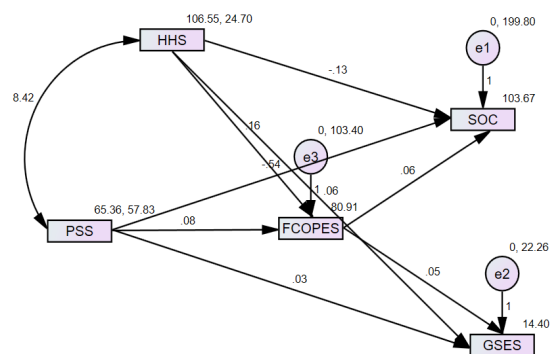
correlation analyses were used. Structural Equation Modeling (SEM) was used to test the proposed model of the current study. For mediation and moderation SEM analysis, Hayes (2013) model was used. To find out gender differences independent sample t-test was applied.

Table 1 represents the reliability analysis for the scales and subscales used in this study along with their mean, standard deviation and range. Reliability analysis indicated alpha reliability was acceptable among all scales. The data was normally distributed. Correlation coefficients indicated that parental stress has significant positive correlation with hope ($r = .35, p < .01$) and significant negative correlation with sense of coherence ($r = -.34, p < .01$). Self-efficacy has also significant negative correlation with parental stress scale ($r = -.28, p < .05$). Hope has significant negative correlation with sense of coherence ($r = -.26, p < .01$) and significant positive correlation with self-efficacy ($r = .22, p < .05$). Coping Strategies has significant positive correlation with sense of coherence ($r = .35, p < .01$), and self-efficacy ($r = .19, p < .01$).

Table 2 shows comparison of fit indices in default and modified model across mediation. Results revealed that finally modified model was the best fitted model of the current study $X^2(197)$

= 24.69, $p < .01$.

Fig. 2. Finally Modified model of the Current Study

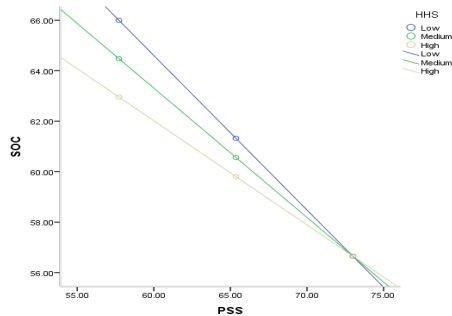


Note. PSS = Parental Stress, FCOPES = Coping Strategies, HSS = Hope, SOC = Sense of Coherence, GSES = Self-Efficacy

Figure 2 shows model of parental stress as a predictor of sense of coherence mediated by coping strategies. The results indicated that coping strategies mediates the relationship between parental stress and sense of coherence. The direct effect of parental stress on sense of coherence was significant ($B = -.54, p < .01$). The indirect effect of parental stress to coping strategies ($B = .08, p < .01$) on sense

of coherence was also significant ($B = .06, p < .01$). Figure also shows model of parental stress as a predictor of general self-efficacy mediated by coping strategies. The results indicate that coping strategies mediates the relationship between parental stress and general self-efficacy and parental stress. The direct effect of parental stress on self-efficacy was significant ($B = .03, p < .01$). The indirect effect of parental stress to coping strategies ($B = .08, p < .01$) on self-efficacy was also significant ($B = .05, p < .01$).

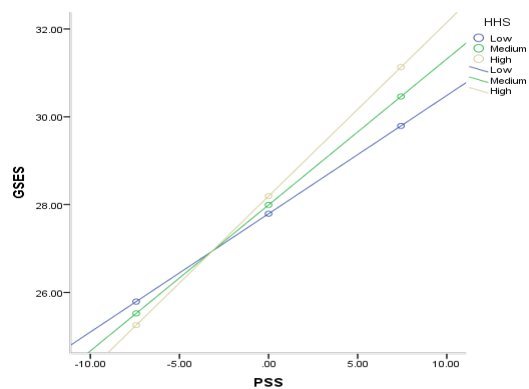
Figure 3 - Moderating Role of Hope between Parental Stress and Sense of Coherence



Note. PSS = Parental Stress, SOC = Sense of Coherence, HSS = Hope

Figure 3 shows moderating role of hope between parental stress and sense of coherence among parents of children with ASD. This model shows the intersection of lines which indicates that moderation of hope occurs at the lower level between parental stress and sense of coherence.

Figure 4 - Moderating Role of Hope in relationship with Parental Stress and General Self-Efficacy



Note. PSS = Parental Stress, GSES = Self-Efficacy, HHS = Hope

Figure 4 shows moderating role of hope between parental stress and general self-efficacy among parents of children with ASD. Above figure clearly indicates that the line did not pass each other nor they intersect. Hence moderation of hope occurs at the higher level between parental stress and self-efficacy.

Table 3 - Mean Difference in the Study Variables on the Basis of Parent's Gender

Variables	Fathers		Mothers		t(198)
	M	SD	M	SD	
Parental Stress	66.88	9.58	65.88	6.62	.66
Coping Strategies	106.37	10.50	106.27	11.09	.05
Hope	98.87	18.53	91.48	11.83	2.60*
Sense of Coherence	33.57	12.55	37.90	13.47	-4.33*
General Self-Efficacy	35.62	4.10	37.32	4.26	-1.75*

Table 3 illustrates differences on the basis of parents' gender and effect sizes in parental stress, coping strategies, hope, sense of coherence, general self-efficacy. Results show that mothers were significantly higher on reframing ($M = 30.22, SD = 3.94$) with moderate effect size ($>.5$), sense of coherence ($M = 30.90, SD = 13.47$) with low effect size ($<.5$), comprehensibility ($M = 24.90, SD = 7.61$) with moderate effect size ($>.5$), manageability ($M = 20.90, SD = 6.29$) with high effect size ($>.8$), meaningfulness ($M = 22.10, SD = 5.57$) with high effect size ($>.8$), and general self-efficacy ($M = 37.32, SD = 4.26$) with low effect size ($<.5$). Fathers were significantly higher on seeking spiritual support ($M = 14.50, SD = 2.28$) with moderate effect size ($>.5$), hope ($M = 98.87, SD = 18.53$) with low effect size ($<.5$), positive readiness and expectancy ($M = 26.28, SD = 5.27$) with moderate effect size ($>.5$), and interconnectedness ($M = 32.90, SD = 6.80$) with moderate effect size ($>.5$).

Discussion

Findings of the study revealed that parental

stress negatively effect on sense of coherence and self-efficacy among parents of children with ASD. Due to the lack of understanding about autism and their inability to care for a child with ASD, inaccessibility to treatment and therapy brings forth the stress level among parents, which adversely execute their sense of coherence and their approach towards acceptance and adjustment. Results are consistent with the previous literature. Kościelak and Gronostaj (2019) give the evidence for the relation between parental stress and sense of coherence. The findings showed that level of stress fluctuate according to one's perception about the purpose of their life (meaningfulness), embracing life's set of circumstances (comprehensibility and their attitude and amount of efforts for the upbringing of their child with ASD (manageability).

It was found that coping strategies mediated the relationship between parental stress and sense of coherence and mediated between parental stress and self-efficacy among parents of ASD children. Parenting a child with ASD is a very demanding and critical responsibility in parent's capacity of care. Meeting the new demands of parenting mostly depends on parent's own sense of self-efficacy. This is one of the few studies that shed light on the unfolding and dynamics of self-efficacy in relation with parental stress among parents of children with ASD. The findings of present study reveal a notable correlation among levels of stress and sense of self-efficacy in the whole representation of parents in this study. Bases on current study findings, data from previous literature showed that parent's understanding of their child's condition, accurate diagnosis, their sense of agency, realization and understanding of one's own capabilities and family resources along with their self-efficacy all contribute to the levels of stress among parents (Kościelak & Gronostaj, 2019). Additionally, our outcomes show that fortifying the feeling of self-efficacy and sense of coherence can emphatically influence the parent's feelings of stress (Woodman & Hauser-Cram, 2012).

According to the current findings, current study revealed the moderating role of hope and relationship of parental stress with self-efficacy among the parents of children with ASD. Raising

a child with ASD becomes a very challenging job for parents that give rise to level of stress among parents. Responsibilities of parenting and stress are always interlinked among these parents. Also parenting stress is also linked with sense of coherence along with numerous other factors (Turró-Garriga et al., 2019; Prataet al., 2019). The current findings revealed that parental stress is negatively correlated with sense of coherence. Parents having high stress levels will have low sense of coherence and higher-level of sense of coherence reduces the levels of stress among parents.

In the current study, the hope also moderated the relationship between parental stress and sense of coherence among the parents of children with ASD. The explanation for these findings is very necessary to understand the antecedents of stress. Being a parent of child with ASD, certainly transforms their lifestyle, future plans, demands, beliefs and understanding about their parenting responsibilities. Studies indicate that people with a strong sense of coherence are less vulnerable to stressful situations, as they possess a wide and varied repertoire of coping resources and strategies and are sufficiently flexible and capable of choosing the most appropriate strategy for a given situation. In contrast, people with a weak sense of coherence may exhibit more symptoms associated with stress, experience social difficulties, employ less effective coping mechanisms, and experience loneliness and social isolation (Braun-Lewensohn&Sagy, 2014).

Differences in parental stress are also examined in relation to gender of parents. Results show that mothers were significantly higher on reframing, sense of coherence, comprehensibility, manageability, and meaningfulness and self-efficacy whereas fathers were significantly higher on seeking spiritual, hope, positive readiness and expectancy, and interconnectedness. Previous studies indicated that both parents experience more elevated levels of emotional wellness and stress. Studies also revealed that before a decade ago there had been very few researches regarding the gender of parents of children having autism spectrum disorder. Notwithstanding, such studies has followed off since. Moreover, the previous

researches about the gender differences of parents mostly included western samples and also revealed that mentally, females are all the more adversely influenced than men when confronted with unpleasant life occasions, for example, disease and handicap; social contrasts exist between Asian also, Western social orders; but in the present time, with the change in gender roles and their duties and responsibilities, new research finding does not support these old findings (Ang & Loh, 2019). Also I would like to add that due to COVID-19, both parents were spending similar amount of time with their autistic children that's could be one of the reason to present similar levels of stress.

Conclusion

Findings revealed that parental stress has significant negative effect on sense of coherence and self-efficacy. Coping strategies mediated relationship between parental stress and sense of coherence and between parental stress and self-efficacy. Hope moderated the relationship between parental stress and sense of coherence and between parental stress and self-efficacy. Results also revealed that there is no difference between the stress levels of both parents.

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Humera Iqbal, Department of Psychology, Foundation University, Islamabad.
Email: humera.iqbal08@gmail.com

Muhammad Akram Riaz, Ph.D., Assistant Professor, Department of Psychology, University of Lahore, Sargodha Campus. Pakistan, Email: akramriaz313@gmail.com (Corresponding Author)

Urwah Ali, Assistant Professor, Department of Psychology, Foundation University, Islamabad. Email: urwahz@gmail.com

Attiqua Mumraiz, Department of Psychology, Foundation University, Islamabad, Email: attiqakhan921@gmail.com