

Resilience, Hope, and Self-Efficacy in Mothers having Children Diagnosed with Autism Spectrum Disorder

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This research aimed to investigate resilience and hope as correlates and predictors of self-efficacy in mothers of children diagnosed with Autism Spectrum Disorder (ASD). Correlational research design was employed. Using purposive sampling strategy, a sample of 60 mothers having children with ASD with age range of between 4-12 years was selected from Children Hospital, Lahore. Three self-reported questionnaires were used for data collection that includes State Trait Resilience Inventory (Hiew, Mori, Shimizu, & Tominga, 2000), The Adult Dispositional Hope Scale (Snyder et al., 1991) and General Self-Efficacy Scale (Schwarzer & Jerusalem, 1995). Results showed that a significant positive relationship existed between resilience and hope. However, resilience and hope didn't have any significant relationship with self-efficacy. Multiple hierarchical regression analysis showed that self-efficacy was not predicted by resilience and hope. Findings imply the importance of considering socio-demographic characteristics of mothers rearing a child with ASD to better understand their sense of self-efficacy.

Keywords: resilience, hope, self-efficacy, autism spectrum disorder.

Autism Spectrum Disorder (ASD) is a debilitating neurodevelopmental disorder. Children diagnosed with ASD usually show deficits in verbal communication, social communication and cognitive functioning. They manifest rigid and restricted repetitive

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behaviors. The symptoms are manifested at an early age and may cause significant problems in social, educational and other important life functioning areas (American Psychiatric Association, 2013). The Autism and Developmental Disabilities Monitoring network estimated prevalence of 14.6% in children with ASD aged 8 years in the USA (Christensen et al., 2016). There are nearly 350,000 children diagnosed with ASD in Pakistan as per Autism Record Centre (Irfan, 2013). Suhail and Zafar (2008) determined 6.31% prevalence of autism in children in special education schools of Lahore.

Parenting a child with ASD can be stressful due to severe cognitive limitations and behavior management concerns which may induce a sense of imbalance in the family (Khawar & Saeed, 2016). There is considerable research evidence documenting that mothers hold primary responsibility for rearing a child with ASD and care giving demands may take a toll and appears as burden on their mental health (Lin, 2015; Lin, 2011; Lovell, Moss, & Wetherell, 2015). Mothers raising a child with autism face many challenges such as financial burden, quitting job, and less desired participation in social and recreational activities (Beecham, Knapp, & Romeo, 2007). Gill and Harris (1991) concluded that some mothers having child diagnosed with ASD do not have elevated stress levels because of the presence of certain intrinsic individual personality characteristics.

In various studies, the word 'resilient' is usually used to describe the mothers who have a positive approach while dealing their disabled child (Hawley, 2000). Resilience is explained as having the ability to overcome a bad experience in life (Walsh, 1996). Three main characteristics of resilience are as following: (1) positive outcomes under high risk condition; (2) high proficiency in stressful conditions; and (3) a relapse from painful experiences (Masten, Best, & Gramezy, 1990). Resilience is further categorized as state resilience i.e. difficult situations in which resilience is enforced and trait resilience i.e. one of positive personality characteristics that help people adapt to difficult life situations and bounce back from adversity (Hiew, 2000; Ong, Bergeman, Bisconti, & Wallace, 2006). Murry, Bynum, Brody, Willert, and Stephens (2001) described resilience as a person's ability to defy when something bad happens in life and manage successfully. Resilience model of stress, adjustment, and adaptation (McCubbin & McCubbin, 1996) helps explain why some parents having children with developmental disabilities manage to positively cope with

parenting stress. Families who are resilient have certain characteristics that reduce stress such as they have strong faith in religious and cultural traditions, have a positive approach towards life, and appraise adverse life situations as opportunities and challenges that enable them to withstand and manage the stressful situations successfully. Besides resilience, another attribute which may lead parents to have positive approach towards their child diagnosed with ASD, is having hope (Breda, 2001).

Hope is described as a positive approach that a person has when he/she wants to achieve something. It is an interactively derived perception of successful agency (motivation to pursue a goal) and pathways (planning and finding ways to meet a goal). People are considered hopeful when they have a goal or purpose in life and they think to create routes or pathways to reach their goals (Snyder, 2002). Lloyd and Hastings (2009) discovered that hope is an important construct in maintaining the psychological well-being of mothers having children diagnosed with intellectual disabilities. Hope is an essential feature for mothers with disabled children in the face of psychological distress (Ogsten, Mackintosh, & Myers, 2011). In another research, hopeful thinking was related to decreased loneliness and depressive symptomatology in mothers having children with ASD (Ekas, Pruitt, & McKay, 2016). Kuhn and Carter (2006) found that presence of agency in mothers of children with autism predicted significantly for maternal self-efficacy.

Self-efficacy can be defined as individuals' ability to achieve their goals. Bandura (1982) defined self-efficacy as how well a person can perform the required courses of actions to deal with particular situations. Moreover, it is a measure of one's coping strategies in the face of obstacles. Hastings and Brown (2002) reported a significant negative relationship between behavior problems in children with ASD and self-efficacy in their mothers. Another research showed that maternal self-efficacy is associated with high parenting self-esteem (Coleman & Karraker, 2003), adaptive and better family approach against adversity (Seigny & Loutzenhiser, 2009). Parental self-efficacy acts as a mediator between child's behavioral issues and increased depressive symptoms in mothers (Rezendes & Scarpa, 2011). Mothers with lower self-efficacy tend to report more psychological distress. Caregiving demands and use of personal resources to deal with parenting stress seem overwhelming to parents

with disabled children if they are physically, mentally and emotionally exhausted. This, in turn, reduces their perceived competence in the parenting role (Giallo, Wood, Jellett, & Porter, 2011). Since extensive empirical literature (Boyraz & Sayger, 2011; Dumka, Gonzales, Wheeler, & Millsap, 2010; Weiss, Tint, Paquette-Smith, & Lunsky, 2013) has shown that parent's self-efficacy is related to a number of parent and child outcomes, there is increased interest in discerning factors that may result in heightened self-efficacy in mothers having a child diagnosed with ASD.

The present study aims to extend knowledge about the possible factors that could contribute to the increased sense of self-efficacy in mothers having children with ASD. To our knowledge, no published empirical study has examined the variance accounted by resilience and hope together for self-efficacy in mothers rearing a child with ASD within the collectivist culture of Pakistan. Being able to identify key factors involved in self-efficacy seems to be an effective way of helping mothers, and through them, their children.

Objectives of the study

- There will be a significant relationship in resilience, hope, and self-efficacy in mothers having children with ASD.
- Self-efficacy will be predicted by resilience and hope in mothers having children with ASD.

Hypotheses of the study

- There is likely to be a significant relationship in resilience, hope and self-efficacy in mothers having children with ASD.
- Self-efficacy is likely to be predicted by resilience and hope in mothers having children diagnosed with ASD.

Method

Research Design and Sample

Correlational research design was used. Sixty mothers ($M_{age} = 30.56$; $SD = 4.12$) of children with ASD were selected using purposive sampling strategy. Children diagnosed with ASD aged between 4 and 12 years. The sample was collected from Children Hospital, Lahore.

All biological mothers included in the study were housewives. Only those mothers were selected who had at least one child diagnosed with ASD by a professional psychologist or psychiatrist. Mothers with any diagnosed physical or psychological disability were excluded from this study.

Table 1

Demographic Characteristics of Sample

Variables	<i>f (%)</i>	<i>M (SD)</i>
Mothers' age		30.56 (4.12)
Mothers' Education		
Uneducated	2(3.3)	
Primary	0 (0)	
Middle	14(23.3)	
Matric	19(31.7)	
Intermediate	9(15)	
Bachelors	16(26.7)	
Marital Status		
Married	50(83.3)	
Divorced	7(11.7)	
Widower	3(5.0)	
Age of Child with ASD		8.58(2.03)
Gender of Child with ASD		
Boy	35(58.3)	
Girl	25(41.7)	

Note. N = 60; ASD = Autism Spectrum Disorder.

Instruments

Demographic information sheet. It included questions regarding mother's age, marital status (married/divorced/widow) of mothers, mother's education, and child's gender.

State Trait Resilience Inventory ([STRI]; Hiew, Mori, Shimizu, & Tominga, 2000). It measures resilience in individuals in the face of adversity. In the present study, Urdu translation of this scale was used (Kausar, 2014). It has 33 items and 2 subscales; state resilience (SR; 15 items) and trait resilience (TR; 18 items). Hiew, et al. (2000) measured Cronbach alpha of STRI as .73 and its subscales had internal consistency of .76 and .77 respectively. Each statement is scored on 5 point Likert scale (1 = strongly disagree; 5 = strongly agree). Higher scores on subscales indicate higher state and trait resilience. Cronbach alpha acquired for the instrument (STRI) and its subscales (SR, TR) in the present sample were .69, .54 and .32 respectively.

Adult Dispositional Hope Scale ([ADH]; Snyder et al., 1991). It measures individual's level of hope. In the present study, Urdu translation of this scale was used (Sarwar, Gul, & Khawaja, 2015). This instrument has 12 items and 2 subscales; agency (4 items) and pathways (4 items). Four items were distractors and not scored. Snyder et al. (1991) measured the Cronbach alpha value of the scale to be .91. Responses are rated on 8-point Likert format ranging from 1 (definitely false) to 8 (definitely true). Higher scores indicate high level of hope. Cronbach alpha acquired for the instrument (ADH) and its subscales (agency, pathways) in the present sample were .65, .63 and .61 respectively.

General Self-Efficacy Scale ([GSE]; Schwarzer & Jerusalem, 1995). It consisted of 10 items. Responses are rated on 4-point Likert scale where 1 means (not at all true) and 4 means (exactly true). Higher score indicated more self-efficacy. Schwarzer and Jerusalem (1995) reported Cronbach alpha value between .76 to .90. Urdu adaptation of GSE was used in this study (Tabassum, Rehman, Schwarzer, & Jerusalem, 2003) and showed an internal consistency of .47 for the sample.

Procedure

First of all, institutional review board confirmed the ethical suitability of current research project. Later, permissions were sought from the original authors and Urdu translators of the questionnaires to be used in the present research. Researchers also took permission of

the Head of Psychiatry Department of Children Hospital, Lahore and then approached mothers having children diagnosed with ASD. Before the onset of data collection, an informed consent was taken from those participants who met the inclusion criteria. The participants were also informed about the nature of the study. The participants' privacy and confidentiality were assured.

Results

The 22nd version of the Statistical Package for Social Sciences was used to test assumptions of this study. Pearson Product Moment Correlation Coefficient and Multiple Hierarchical Linear Regression analysis was used to test the hypotheses of this study.

Table 2

Relationship in Resilience, Hope and Self-Efficacy in Mothers of Children diagnosed with ASD (N=60)

Variables	1	2	3	4	5	6
1. State Resilience	-					
2. Trait Resilience	.75***	-				
3. Hope	.52***	.53***	-			
4. Agency	.45***	.48***	.82***	-		
5. Pathway	.41**	.39**	.83***	.36**	-	
6. Self-efficacy	.05	.01	.17	.12	.16	-
<i>M</i>	3.01	2.97	4.66	4.49	4.83	2.65
<i>SD</i>	.42	.39	.85	1.02	1.04	.35

Note. M=mean; SD=standard deviation.

** $p < 0.01$, *** $p < 0.001$.

Results derived from Pearson correlation showed that both types of resilience (i.e., state resilience and trait resilience) were significantly positively correlated with hope and its dimensions in

mothers of children diagnosed with ASD. However, self-efficacy did not have a significant relationship with resilience and hope in mothers of children diagnosed with ASD.

Predictors of Self-efficacy

Multiple hierarchical linear regression analysis was performed to identify the predictors of self-efficacy in mothers having child diagnosed with ASD. Since marital status of mothers included in this study was varied and could potentially act as covariate, it was decided to exclude data of mothers who were divorced and widowed ($n = 10$) from regression analysis. The assumption of independent errors was tested with Durbin Watson Test and index value was within the acceptable range of 1-3 and the other assumption of no perfect multicollinearity was tested through tolerance statistics in which all values of predictors were less than .2.

Table 3

Multiple Hierarchical Linear Regression Analysis Showing Predictors of Self-Efficacy in Mothers of Children Diagnosed with ASD (N=50)

Predictors	Self-Efficacy	
	ΔR^2	β
Step I	.03	
State Resilience		.22
Trait Resilience		-.27
Step II	.03	
Agency		.14
Pathways		.14
Total R^2	.06	

A multiple hierarchical linear regression was run to identify predictors of self-efficacy in mothers having children diagnosed with ASD. In first step, both resilience subscales i.e., State resilience and

Trait resilience were included and the model was not significant, $R^2 = .03$, $F(2, 47) = .76$, $p = .474$. In step 2, both resilience subscales and hope dimensions were included and still the model was not significant, $R^2 = .06$, $F(4, 45) = .75$, $p = .565$. When the effect of step 1 was subtracted from step 2; the model was still not significant, $R^2 = .03$, $F(2, 45) = .74$, $p = .481$.

Discussion

This research aimed to identify the relationship between resilience, hope and self-efficacy in mothers of children diagnosed with ASD and to identify predictors of self-efficacy in them.

The results of first hypothesis reflected a significant positive relationship in both types of resilience (i.e., State Resilience and Trait Resilience) and hope, and its dimensions in mothers of children diagnosed with ASD. This result is supported by the research findings of Kirmani, Sharma, Anas, and Sanam (2015) as they found that resilience and hope were positively related to psychological well-being. Margalit and Kleitman (2007) concluded from their experimental research that resilient mothers having children with developmental disabilities are likely to have lower stress and higher sense of coherence. Similarly, resilience in caregivers of people with developmental disabilities is related to reporting of better perceived health, better family functioning, higher internal locus of control, higher social support, and higher usage of problem-focused coping strategies (Khan, Kamran, & Ashraf, 2017; McConnell, Savage, & Breitzkreuz, 2014; Ruiz-Robledillo, De Andrés-García, Pérez-Blasco, González-Bono, & Moya-Albiol, 2014). Since resilience is related to a number of favorable outcomes, it comes as no surprise that the present study also indicates that mothers with children diagnosed with ASD (who are resilient and thrive in the face of parenting stress) are likely to have higher maternal agency and pathways.

Despite expectations, resilience and hope were not correlated significantly with self-efficacy in this study. This finding is contrary to the results of many previous researches that showed a significant positive relationship of resilience and hope with self-efficacy in mothers having children with ASD (Greef & Walt, 2010; Ekas & Whitman, 2010). This finding; however, can be explained within the context of cultural background. The sample of this study was taken

during the time when mothers had brought their ASD children to a government hospital for a therapeutic session. Government hospitals generally are not properly equipped to care for the needs of ASD children. Moreover, unique symptoms experienced by children with ASD, poor public understanding of general ASD symptoms, and low socioeconomic status are also one of the reasons due to which many resilient and hopeful parents find it hard to act upon the advice of a therapist to better manage their ASD child's symptoms (Imran & Azeem, 2014). Thus resilience and hope might not necessarily translate into an increased sense of self-efficacy in mothers having children with ASD due to fewer family and financial resources. It is also possible that small sample size and questionable reliability of a couple of measures in this study might have reduced the statistical power to detect significant effect.

Predictors of Self-efficacy

It was assumed that resilience and hope will predict self-efficacy in mothers of child diagnosed with ASD. However, this assumption was not verified by the results of hierarchical linear regression analysis as resilience and hope did not significantly predict self-efficacy in mothers having children diagnosed with ASD. Thus, it may be speculated that there are factors other than resilience and hope which contribute to the self-efficacy of mothers having children diagnosed with ASD. Many researchers (Hastings & Brown, 2002; Heller, 1993) have found that child behavioral disturbances and care giving demands (which this research did not take into account) can negatively impact parents' self-efficacy. We have reasons to believe that mothers included in the present sample were resilient and hopeful towards their ASD child management because they were seeking psychotherapy for their ASD child. However, the role of certain psychosocial variables cannot be ignored while interpreting the results of this finding. Insufficient space available in the house to look after a child with ASD, low family income, low education, lower level of satisfaction with mental health services, and no social support are some factors that could lower self-efficacy of highly resilient and hopeful mothers. It was evident that mothers in this sample sought therapy for their child with ASD; however, researchers did not determine whether they were satisfied with the available professional

help or were acting upon the expert's advice which could have helped explained about self-efficacy of mothers having children with ASD.

Limitation

This study has following limitations. (1) Limited sample size, (2) This study included mothers who were housewives, were seeking psychotherapy for their ASD child, and were recruited from the single site; thus, it is likely that the sample is not representative of the overall population of mothers rearing a child with ASD which warrants caution regarding generalization of the study findings, (3) single assessment point precluded conclusions regarding causality, (4) questionable reliability of Trait Resilience subscale and General self-efficacy scale demand cautious interpretation of results. More sensitive and psychometrically sound measures of resilience and self-efficacy might have provided conclusive results, and (5) detailed demographic profile of mothers and behavioral characteristics of child were not taken into account.

In the future, causal-comparative study should be done to determine differences between mothers having child with ASD who seek mental health services and those who do not. Future studies need to have a large sample size and a more representative sample to ascertain if resilience and hope contribute or do not contribute significant variance in self-efficacy in mothers rearing a child with ASD. It would be informative to design a longitudinal research to determine how self-efficacy is developed over time in mothers of children with ASD.

Conclusion

This study suggests that resilience and hope have a significant positive relationship with each other. Moreover, resilience and hope did not significantly correlate with and predict self-efficacy in mothers raising child with ASD. Findings highlight the need to look for socio-demographic profile of mothers and behavioral characteristics of their child with ASD in order to determine factors/predictors which may contribute to increased sense of self-efficacy in mothers.

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