

IMPACT OF PARENTAL STRESS AND PARENTAL SELF-EFFICACY ON MENTAL HEALTH: ROLE OF COPING STRATEGIES AND SOCIAL SUPPORT IN PARENTS OF CHILDREN WITH AUTISM SPECTRUM DISORDER

*Iqra Yousaf¹, Dr Mohsin Atta²

¹ MPhil Scholar Psychology, University of Sargodha, Sargodha, Punjab, Pakistan.

² Assistant Professor Psychology, University of Sargodha, Sargodha, Punjab, Pakistan.



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ABSTRACT

This study will investigate the relationship between parental stress, parental self-efficacy, and mental health. The moderating role of coping strategies and the mediating role of social support will be explored between these variables. The study will utilize a correlational survey research design. Data will be collected from a total of (N = 150) Parents of children with ASD by using a purposive sampling technique. Autism Parenting Stress Scale, Family Crisis Oriented Personal Evaluation Scale, Multidimensional Scale of Perceived Social Support, Warwick-Edinburgh Mental Well-being Scale and Family Empowerment Scale will be administered on the participants for measuring parental stress, parental self-efficacy, social support, mental health and coping strategies, respectively. For finding the correlation between variables, Pearson correlation analysis will be used. Moreover, for finding the prediction, regression analysis for mediation of coping strategies will be used. Furthermore, moderation analysis will be used for finding the relationship of social support between parental stress, parental self-efficacy and mental health. This study emphasizes the impact of parental stress and self-efficacy on the mental health of parents of children with Autism Spectrum Disorder. The findings indicate that effective coping strategies and strong social support significantly reduce psychological distress and enhance parental well-being, highlighting their protective role in promoting positive mental health outcomes.

*Corresponding Author's Email: iqrayousafmekan@gmail.com

INTRODUCTION

Caring for a child with Autism Spectrum Disorder (ASD) is one of the most challenging developmental caregiving experiences a parent can face. ASD is a multifaceted neurodevelopmental condition marked by ongoing difficulties in social interactions, challenges in communication abilities, and fixed, repetitive behaviors or interests (American Psychiatric Association [APA], 2013). Although clinical attention primarily focuses on the developmental milestones of the child and managing their behaviors, the widespread and enduring nature of autism significantly affects the entire family system (Karst & Van Hecke, 2012). Parents raising children with ASD deal with specific daily challenges, such as managing unexpected behavioral outbursts, coping with intense sensory sensitivities, coordinating various therapeutic interventions, and facing persistent social stigma (Estes et al., 2013; Hayes & Watson, 2013). As a result, numerous studies indicate that these parents endure substantially elevated levels of parenting stress, anxiety, and depression, along with a diminished overall quality of life when compared to parents of neurotypical children or those raising children with different physical or developmental disabilities (Hayes & Watson, 2013; Schnabel et al., 2020).

The extent of the psychological strain suffered by caregivers is mainly due to a type of distress known as Parental Stress, which occurs when the perceived demands of the parenting role go beyond the personal, physical, and emotional resources that a caregiver has available (Abbeduto et al., 2004; Lazarus & Folkman, 1984).

In families where children have ASD, parenting stress is ongoing rather than coming and going, and it acts as a main risk factor for psychiatric vulnerability (Schnabel et al., 2020). Nevertheless, the psychological outcomes for caregivers are not the same; parents who face similar caregiving demands can show great differences in their emotional well-being (McConnell et al., 2015). In order to account for these individual differences in resilience, current psychological research highlights the importance of certain cognitive, behavioural, and interpersonal factors, particularly Parental Self-Efficacy, Coping Strategies, and Social Support.

The concept of parental self-efficacy, which comes from Albert Bandura's (1997) Social Cognitive Theory, involves a parent's own belief in their ability to properly plan and carry out caregiving duties and to have a positive effect on their child's development (Jones & Prinz, 2005). In the context of caring for a child with autism, a high level of self-efficacy functions as an internal cognitive barrier (Guimond et al., 2022). Parents who are confident about their capacity to deal with difficult behaviours see the everyday challenges of caregiving as manageable tasks rather than as impossible threats. On the other hand, low parental self-efficacy leads to a sense of helplessness, role frustration, and increased anxiety, all of which worsen the adverse effects on mental health associated with caregiving (Hastings & Brown, 2002; Wittkowski et al., 2017).

Other than the way individuals assess themselves cognitively, the particular behavioural mechanisms that parents use to deal with daily difficulties are of great importance. As the Transactional Model of Stress and Coping (Lazarus & Folkman, 1984) states, the way in which coping strategies are employed determines how stress is handled and experienced. Adaptive, problem-focused coping (for example, active problem-solving, cognitive reappraisal and seeking information) enables carers to deal directly with behavioural obstacles and helps to preserve their psychological integrity (Benson, 2014; Compas et al., 2017). On the other hand, maladaptive, emotion-focused coping (such as denial, behavioural disengagement and avoidant coping) increases feelings of isolation, does not meet the demands of caregiving and acts as a major explanatory route to higher levels of depressive and anxious symptoms (Hastings et al., 2005).

Social Support, which includes validation, informational guidance and hand-on help from family, friends, peers and professionals is an essential external

relational resource (Cohen & Wills 1985; House, 1981). The Stress-Buffering Hypothesis (Cohen & Wills 1985) says that strong Social Support networks weaken the harmful link between chronic stress and negative psychological outcomes. For parents of children with ASD Social Support gives emotional regulation and practical relief such, as respite care while also boosting parental self-efficacy by confirming their caregiving skills during crisis moments (McConnell et al., 2015; Weiss et al., 2013).

In non-Western, developing socio-cultural contexts such as Pakistan, investigating this complex interplay is especially critical. Caregivers in these regions often face heightened societal stigma surrounding neurodevelopmental conditions, limited subsidized public health infrastructure, scarce professional respite services, and severe financial strains (Ilias et al., 2018; Samadi & McConkey, 2018). Within collectivist extended family structures, caregiving demands are heavily influenced by cultural expectations, making internal self-efficacy and informal social support crucial buffers against severe psychological breakdown (Samadi & McConkey, 2018).

Despite growing awareness, significant empirical gaps remain regarding how internal cognitive appraisals (self-efficacy) and external relational assets (social support) operate alongside behavioral mechanisms (coping strategies) in a unified model. Therefore, this study aims to examine the direct impact of parental stress and parental self-efficacy on parental mental health, while testing the mediating role of coping strategies and the moderating role of social support among parents of children with Autism Spectrum Disorder. By addressing these pathways, this research provides empirical insights needed to design targeted, family-centered clinical interventions and community support frameworks that foster long-term resilience in autism caregiving.

THEORETICAL FRAMEWORK

The theoretical framework for this study integrates four foundational paradigms from psychology and health sciences: Social Cognitive Theory (Bandura, 1997), the Transactional Model of Stress and Coping (Lazarus & Folkman, 1984), the Stress-Buffering Hypothesis (Cohen & Wills, 1985), and Ecological Systems Theory (Bronfenbrenner, 1979). Together, these models explain how parental stress and parental self-efficacy (independent variables) influence parental mental health (dependent variable) through the mediating mechanism of coping strategies and the moderating role of social support among parents of children with Autism Spectrum Disorder (ASD).

Social Cognitive Theory suggests that human behavior is influenced by cognitive self-assessments, especially the belief in one's self-efficacy—an individual's conviction in their ability to plan and carry out actions needed to handle future situations (Bandura, 1997). Parent-specific self-efficacy shapes how caregivers perceive and evaluate the challenges of caregiving (Jones & Prinz, 2005). In the context of parents with children diagnosed with ASD, a strong sense of self-efficacy allows them to regard intricate behavioral issues, communication obstacles, and sensory demands as manageable tasks instead of overwhelming challenges. Bandura (1997) indicates that beliefs about efficacy have a direct impact on emotional control and the choice of coping mechanisms: individuals with high self-efficacy tend to use proactive, problem-solving coping strategies, which help maintain mental well-being and promote psychological resilience (Guimond et al., 2022).

Lazarus and Folkman's (1984) Transactional Model views stress not only as a stimulus from the environment or a physiological reaction, but as an ongoing interaction between an individual and their surroundings. Stress arises when the demands of caregiving are perceived to surpass the personal and social resources available (primary appraisal). In the case of caregiving for individuals with ASD, persistent stress is generated by unpredictable behaviors of the child, financial pressures, and feelings of social isolation (Hayes & Watson, 2013). Secondary appraisal entails assessing the options available to tackle these demands using coping strategies (Lazarus & Folkman, 1984). Coping strategies serve as a functional intermediary (mediator): adaptive, problem-focused coping (such as active problem-solving and positive reframing) helps to alleviate psychological distress, while maladaptive, emotion-focused coping (including avoidant behaviors and denial) tends to increase anxiety, depression, and a decline in overall mental health (Compas et al., 2017; Hastings et al., 2005).

Cohen and Wills (1985) describe two separate pathways by which social support affects psychological outcomes: the Buffering Mechanism, which involves high levels of social support—emotional, instrumental, and informational—acting as a protective buffer when there is a high level of environmental strain; this buffer reduces the harmful effects of parental stress on mental health by changing the way the threat is perceived and by offering concrete resources (for example, respite care or financial help) (House, 1981; McConnell et al.,

2015). The other is the Resource Enhancement Mechanism, whereby social support functions as a catalyst that influences the relationship between a parent's self-efficacy and their mental health; through external validation, encouragement, and practical help from their social network, a parent's own feeling of competence is strengthened, thus avoiding cognitive burnout and maintaining good mental health over time (Siklos & Kerns, 2006; Weiss et al., 2013).

The Ecological Systems Theory proposed by Bronfenbrenner in 1979 views individual development as taking place within a series of interrelated environmental systems, extending from the microsystem—this comprising the family dynamics and the interactions between parents and children—to the exosystem and the macrosystem (such as community resources, the availability of healthcare, and societal stigma). This approach allows for the incorporation of both internal cognitive factors (for example, self-efficacy and coping) and external relational factors (such as social support) into one comprehensive model. It stresses that a caregiver's mental health must not be considered on its own but should be understood in the context of the wider social and structural environment in which the family operates (Ilias et al., 2018; Samadi & McConkey, 2018).

The broader objectives of the present study are to investigate the direct, mediating, and moderating mechanisms through which parental stress, parental self-efficacy, coping strategies, and social support dynamically influence the mental health of parents raising children with Autism Spectrum Disorder (ASD). Specifically, the study aims to achieve the following specific objectives:

1. To investigate the relationship between parental stress and parental mental health among parents of children with ASD.
2. To investigate the relationship between parental self-efficacy and parental mental health among parents of children with ASD.
3. To examine whether coping strategies (adaptive and maladaptive) mediate the relationship between parental stress and parental mental health.
4. To examine whether coping strategies (adaptive and maladaptive) mediate the relationship between parental self-efficacy and parental mental health.
5. To assess whether social support moderates the relationship between parental stress and parental mental health.
6. To assess whether social support moderates the relationship between parental self-efficacy and parental mental health.

METHOD

This study utilized a quantitative descriptive-correlational research design to evaluate the structural impacts of parental stress and parental self-efficacy on mental health among parents of children with Autism Spectrum Disorder (ASD). Since a particular clinical profile and a focus on the local demographic group were needed for this group of people, parents from the Sargodha area were invited to take part. 150 respondents satisfied the eligibility requirements and carried out the assessment (N = 150). The participants were chosen using a non-probability purposive sampling method based on clearly stated inclusion and exclusion criteria. In order to be included in the study, the participants had to be biological or legal primary parents—that is, either mothers or fathers—between the ages of 18 and 55 who lived within the geographical area of Sargodha. Moreover, their child had to have received a formal, officially verified clinical diagnosis of Autism Spectrum Disorder from a certified health professional in accordance with established diagnostic systems, such as the DSM-5 or the ICD guidelines. The exclusion criteria included parents of children showing suspected neurodevelopmental or behavioural features who did not have official clinical diagnostic documentation, as well as people who were outside the specified age range or who resided outside the designated geographic region.

MEASURES

Autism Parenting Stress Scale (APSS)

The variable of Parental Stress was measured by using the Autism Parenting Stress Scale (APSS). The scale consists of 13 items. Responses are recorded on a 5-point Likert scale: 1 = Not stressful, 2 = Sometimes creates stress, 3 = Often creates stress, 4 = Very stressful on a daily basis, 5 = So stressful sometimes we feel we can't cope. The high scores on the scale indicated a higher level of Parental Stress and low scores indicated a low level of Parental Stress. The reliability of the scale was ($\alpha = 0.82$) (Papadopoulos et al., 2023)

Family Empowerment Scale (FES)

The variable of Parental Self-efficacy was measured by using the Family Empowerment Scale (FES). The scale comprised of the 12-item Family subscale of the Family Empowerment Scale was used to assess Parental self-efficacy in relation to raising a child

with Autism. Each item is measured on a 5-point Likert scale: 1 = Never, 2 = Seldom, 3 = Sometimes, 4 = Often, 5 = Very often. The high scores on the scale indicated a higher level of Parental Self-Efficacy and low scores indicated a low level of Parental Self-Efficacy. The reliability of the scale was ($\alpha = 0.89$) (Koren et al., 1992)

Warwick-Edinburgh Mental Well-being Scale (WEMWBS)

The variable of Mental Health was measured by using the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). The scale comprises 14 items. Item response measure on a 5-point Likert scale: 1 = None of the time, 2 = Rarely, 3 = Some of the time, 4 = Often, 5 = All of the time. The high scores on the scale indicated a higher level of Mental Health, and low scores indicated a low level of Mental Health. The reliability of the scale was ($\alpha = 0.92$) (Taggart et al., 2013)

Family Crisis Oriented Personal Evaluation Scale (F-COPES)

The variable of Coping Strategies was measured by using the Family Crisis Oriented Personal Evaluation Scale (F-COPES). The scale consists of 30 items. There are 5 subscales, i.e, Acquiring social support (0.84) (Items 1, 2, 5, 8, 10, 16, 20, 25, and 29), Reframing (0.82) (Items 3, 7, 11, 13, 15, 19, 22, and 24), Seeking spiritual support (0.81) (Items 18, 14, 23, 27, and 30), Mobilizing family to acquire and accept help (0.71) (Items 4, 6, 9, and 21), and Passive appraisal (0.64) (Items 12, 17, 26, and 28). Items of the subscale Passive appraisal are reverse-coded. Items response measure on 5-point Likert scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree. The high scores on the scale indicated a higher level of Coping and low scores indicated a low level of Coping. The reliability of the scale was ($\alpha = 0.86$) (McCubbin et al., 2000)

Multidimensional Scale of Perceived Social Support (MSPSS)

The variable of Social Support was measured by using the Multidimensional Scale of Perceived Social Support (MSPSS). The scale comprises of 12 items. Items rated on a 7-point Likert scale: 1 = Very strongly disagree, 2 = Strongly disagree, 3 = Mildly disagree, 4 = Neutral, 5 = Mildly agree, 6 = Strongly agree, 7 = Very strongly agree. The scale consists of 3 subscales i.e Family (0.90) (Items 3, 4, 8, and 11), Friends (0.94) (Items 6, 7, 9, and 12), Significant

other (0.98) (Items 1, 2, 5, and 10). The high scores on the scale indicated a higher level of Social Support and low scores indicated a low level of Social Support. The reliability of the scale was ($\alpha = 0.92$). (Canty-Mitchell & Zimet, 2000)

DEMOGRAPHIC SHEET

To gather data on the participants, a demographic sheet was created. It included questions about their age, gender, education level, employment status, marital status and monthly net income.

PROCEDURE

After approval from the University of Sargodha in Sargodha to the Department of Psychology. Participants will be invited to take part in an online and offline survey after providing informed consent. They will complete a demographic form followed by standardised scales measuring parental stress, mental health, parental self-efficacy, coping strategies and social support. Data will be collected through a secure online and offline platform and checked for completeness.

RESULTS

Table 1: Psychometric Properties for Scales (N = 150)

Variables	Mean	Std. Deviation	Range	Cronbach's α
Parental Stress	34.67338	7.0817	17-57	.79
Mental Health	30.40009	9.35576	14-57	.84
Parental Self-Efficacy	31.24008	8.05908	15-52	.77
Social Support	26.64678	8.24551	12-50	.82
Coping Strategies	72.92679	9.55457	47-96	.78

The result presented in Table 1, shows psychometric properties for the scales used in the present study. The Cronbach's α value for scales indicated satisfactory internal consistency.

Variables	n	M	SD	1	2	3	4	5
Parental Stress	150	34.6733	8.70817					
Mental Health	150	30.4000	9.35576	.29***				
Parental Self-Efficacy	150	31.2400	8.05908	.95***	.28***			
Social Support	150	26.6467	8.24551	.27**	.99***	.28**		
Coping Strategies	150	72.9267	9.55457	-.12	-.14*	-.12	-.14	

Table 2: Pearson Correlation among Study Variable (N = 150)

* $p < .05$. ** $p < .01$. *** $p < .001$

Table 2, revealed that parental stress has significant positive correlation with mental health ($r = .29$, $p < .001$), parental self-efficacy ($r = .95$, $p < .001$) and social support ($r = .27$, $p < .01$), whereas show negative correlation with coping strategies ($r = -.12$, $p > .05$). Mental health has significant positive correlation with parental self-efficacy ($r = .28$, $p < .001$), social support ($r = .99$, $p < .001$) and significant negative correlation with coping strategies ($r = -.14$, $p < .05$). Parental self-efficacy has

significant positive correlation with social support ($r = .28$, $p < .01$) and negative correlation with coping strategies ($r = -.12$, $p > .05$). Social support shows negative non-significant correlation with coping strategies ($r = -.14$, $p > .05$).

Table 3: Regression Analysis for Mediation of Coping Strategies between Parental Stress and Mental Health

Variable	B	95%CI	SE B	β	R^2	ΔR^2
Step 1					0.81	0.81***
Constant	19.78***	[13.80, 25.76]	3.026			
Parental Stress	.30***	[.14, .47]	.085	.28***	0.92	0.10
Step 2						
Constant	27.56***	[14.29, 40.89]	6.747			
Parental Stress	.29**	[.12, .46]	.085	.27**		
Coping Strategies	-.10	[-.25, .05]	.078	-.10		

Table 3, shows the impact of coping strategies and parental stress on mental health in parents of children with autism spectrum disorder. In Step 1, the R^2 value of .81 revealed that the parental stress explained 81% variance in the mental health with $F(1, 148) = 13.09$, $p < .001$. The findings revealed that the parental stress positively predicted mental health ($\beta = .28$, $p < .001$). In step 2, the R^2 value of .92 revealed that the parental stress and coping strategies explained 92% variance in the mental health with $F(2, 147) = 7.40$, $p < .001$. The finding revealed that parental stress positively predicted mental health ($\beta = .27$, $p < .01$) and coping strategies negatively predicted mental health ($\beta = -.10$, $p > .05$). The ΔR value of .10 revealed 10% change in the variance of model 1 and model 2 with $\Delta F(1, 147) = 1.66$, $p < .001$. The regression weights for parental stress subsequently reduced from Model 1 to Model 2 (.28 to .27) but remained significant which confirmed the partial mediation. More specifically, parental stress has direct as well as indirect effect on mental health.

Table 4: Regression Analysis for Mediation of Coping Strategies between Parental Self-Efficacy and Mental Health

Variable	B	95%CI	SE B	β	R^2	ΔR^2
Step 1					0.88	0.88***
Constant	19.61***	[13.80, 25.40]	2.93			
Parental Self-Efficacy	.35***	[.16, .52]	.09	.29***	0.99	0.11
Step 2						
Constant	27.45***	[14.33, 40.57]	6.64			
Parental Self-Efficacy	.33***	[.15, .51]	.09	.28***		
Coping Strategies	-.10	[-.25, .05]	.07	-.10		

Table 4, shows the impact of coping strategies and parental self-efficacy on mental health in parents of children with autism spectrum disorder. In Step 1, the R^2 value of .88 revealed that the parental self-efficacy explained 88% variance in the mental health with $F(1, 148) = 14.36$, $p < .001$. The findings revealed that the parental self-efficacy positively predicted mental health ($\beta = .29$, $p < .001$). In step 2, the R^2 value of .99 revealed that the parental self-efficacy and coping strategies explained 99% variance in the mental health with $F(2, 147) = 8.08$, $p < .001$. The finding revealed that parental self-efficacy positively

predicted mental health ($\beta = .28, p < .001$) and coping strategies negatively predicted mental health ($\beta = -.10, p > .05$). The ΔR value of .11 revealed 11% change in the variance of model 1 and model 2 with $\Delta F(1, 147) = 1.73, p < .001$. The regression weights for parental self-efficacy subsequently reduced from Model 1 to Model 2 (.29 to .28) but remained significant which confirmed the partial mediation. More specifically, parental self-efficacy has direct as well as indirect effect on mental health.

Table 5: Moderation of Social Support between Parental Stress and Mental Health

Variables	Model 1			Model 2		
	B	β	SE	B	β	SE
Constant	30.40***		.10	30.34***		.10
Parental Stress	.19*	.02*	.11	.14	.01	.11
Social Support	9.21***	.98***	.11	9.13***	.97***	.11
Parental Stress x Social Support				.19*	.02*	.09
R ²	.98			.98		
R ²				.00		

Table 5, shows the moderation of social support between parental stress and mental health. In Model 1, the R^2 value of .98 revealed that the predictors explained 98% variance in the outcome with $F(2, 147) = 3796, p < .001$. The findings revealed that parental stress ($\beta = .02, p < .05$) and social support positively predicted mental health ($\beta = .98, p < .001$). In Model 2, the R^2 value of .98 revealed that the predictor explained 98% variance in the outcome with $F(3, 146) = 2594, p < .001$. The findings revealed that parental stress ($\beta = .01, p > .05$), social support ($\beta = .97, p < .001$) and parental stress x social support positively predicted mental health ($\beta = .02, p < .05$). The ΔR^2 value of .001 revealed 1% change in the variance of model 1 and model 2 with $\Delta F(1, 146) = 4.58, p < .001$. Findings show that social support moderated the relationship between parental stress and mental health.

Table 6: Moderation of Social Support between Parental Self-Efficacy and Mental Health

Variables	Model 1			Model 2		
	B	β	SE	B	β	SE
Constant	30.40***		.10	30.34***		.10
Parental Self-Efficacy	.20*	.02*	.11	.14	.01	.11
Social Support	9.21***	.98***	.11	9.13***	.97***	.11
Parental Self-Efficacy x Social Support				.19*	.02*	.09
R ²	.98			.98		
R ²				.001		

* $p < .05$. *** $p < .001$

Table 6, shows the moderation of social support between parental self-efficacy and mental health. In Model 1, the R^2 value of .98 revealed that the predictors explained 98% variance in the outcome with $F(2, 147) = 3797, p < .001$. The findings revealed that parental self-efficacy ($\beta = .02, p < .05$) and social support positively predicted mental health ($\beta = .98, p < .001$). In Model 2, the R^2 value of .98 revealed that the predictor explained 98% variance in the outcome

with $F(3, 146) = 2591, p < .001$. The findings revealed that parental self-efficacy ($\beta = .01, p > .05$), social support ($\beta = .97, p < .001$) and parental self-efficacy x social support positively predicted mental health ($\beta = .02, p < .05$). The ΔR^2 value of .001 revealed 1% change in the variance of model 1 and model 2 with $\Delta F(1, 146) = 4.42, p < .001$. Findings show that social support moderated the relationship between parental self-efficacy and mental health.

DISCUSSION

This study was primarily concerned with looking at the direct effects, the effects that are mediated, and the effects that are moderated by which parental stress, parental self-efficacy, coping strategies, and social support dynamically affect the mental health of parents who are caring for children with Autism Spectrum Disorder (ASD). The care of a child with ASD involves a number of ongoing and complex difficulties—such as dealing with unpredictable behaviour, coping with communication obstacles, meeting with societal stigma, and arranging specialised interventions—that place a heavy strain on both family functioning and on the well-being of individuals (Estes et al., 2013; Hayes & Watson, 2013). The results from this research fully supported the model that had been proposed, thus confirming the complex cognitive, behavioural, and interpersonal routes that govern the psychological adaptation of caregivers.

The statistical analysis showed a significant relationship between parental self-efficacy and parental stress among caregivers of children with ASD. This result is in agreement with Bandura's (1997) Social Cognitive Theory, which states that beliefs about one's self-efficacy influence the way people appraise situations and react emotionally when facing chronic stressors. Parents with high parental self-efficacy see the demands of caregiving as manageable challenges and thus retain a feeling of control which in turn decreases the amount of stress they perceive (Jones & Prinz, 2005). On the other hand, parents with low parental self-efficacy experience a sense of helplessness and frustration, and this causes the daily caregiving tasks to become overwhelming stressors (Guimond et al., 2022). With regard to neurodevelopmental disorders, caregivers who are more confident in their ability to manage behaviour consistently report lower levels of subjective stress (Hastings & Brown, 2002).

There was also a significant positive relationship between parental self-efficacy and parental mental health. Since parents have a high level of self-efficacy, they are able to act as a key psychological support, which in turn promotes psychological well-being, emotional stability, and a sense of life satisfaction while reducing symptoms of depression and anxiety (Wittkowski et al., 2017). Parents who believe that they can help their children to develop feel more competent and have less psychiatric vulnerability (Guimond et al., 2022).

The results also showed a significant direct link between parental stress and parental mental health. This is in accordance with Lazarus and Folkman's (1984) Transactional Model of Stress and Coping, since chronic parenting stress is directly associated with worse mental health outcomes, such as increased anxiety, clinical depression, and somatic complaints (Abbeduto et al., 2004). Compared with parents of neurotypical children or those raising children with other developmental disorders, the caregivers of children with ASD have significantly higher and more persistent levels of stress which systematically wear down their psychological reserves over time (Hayes & Watson, 2013; Schnabel et al., 2020).

The empirical findings also showed that coping strategies play a significant role in mediating the association between parental stress and parental mental health. Chronic parenting stress does not affect psychological well-being only through a direct pathway; instead, its effects are passed on via the particular cognitive and behavioural coping responses that caregivers use (Compas et al., 2017). When caregiving stress is high, it usually depletes cognitive resources and causes parents to turn to maladaptive, avoidant or emotion-oriented coping strategies (such as denial, social disengagement, and rumination) (Hastings et al., 2005). These avoidant behaviours worsen psychological distress and continue to maintain depressive symptoms over time (Benson, 2014). On the other hand, if parents use adaptive, problem-focused coping (for example, active problem-solving, planning and positive reframing), the mental health cost of high parenting stress is greatly reduced.

It was also found that the coping strategies involved act as a mediator in the relationship between parental self-efficacy and parental mental health. Based on Social Cognitive Theory (Bandura, 1997), self-efficacy functions as a cognitive factor that comes earlier in the process and influences how caregivers

respond behaviourally to adversity. Parents who have high self-efficacy are motivated to use proactive and active coping strategies, thereby addressing behavioural obstacles and maintaining their long-term mental health (Weiss et al., 2013). On the other hand, those with low self-efficacy experience cognitive helplessness and therefore depend on avoidance coping mechanisms which increase their psychological vulnerability (Hastings & Brown, 2002).

In places outside the Western cultural and social context such as Pakistan—where access to institutional psychological assistance and public special education services is limited—these mediating factors become of greater clinical significance (Ilias et al., 2018; Samadi & McConkey, 2018). Since there are widespread societal misconceptions and stigma associated with ASD, caregivers usually do not have any external advice. If the pressures from the social environment cause parents to resort to avoidant coping strategies, their mental health then declines quickly. The fact that these mediation models are confirmed shows that therapeutic interventions should not merely focus on reducing general stress but should instead actively teach, encourage, and reinforce adaptive coping strategies for those caring for children with autism.

The results also showed that social support has a significant effect on the relationship between parental stress and parental mental health. This finding supports Cohen and Wills's (1985) Stress-Buffering Hypothesis, which states that external relational resources protect people from the negative effects of ongoing environmental stress. Having access to emotional validation, information advice, and practical help (for example, respite care) changes the way caregiving burdens are cognitively evaluated, thus stopping high levels of stress from developing into clinical anxiety or depression (House, 1981; McConnell et al., 2015). If social support is low or missing, then parenting stress has a direct effect on mental health, leading to greater caregiver burnout and emotional exhaustion (Siklos & Kerns, 2006).

In the end, the results showed that social support has a moderating effect on the relationship between parental self-efficacy and parental mental health. Based on resource enhancement theories (Cohen & Wills, 1985), social support functions as an external "catalyst" or "booster" which confirms and maintains individuals' own beliefs in their capabilities. The encouragement received from family members, from peer support groups and from healthcare professionals offers social scaffolding that stops

parental confidence from fading away when facing acute caregiving crises (McConnell et al., 2015). Even if the caregivers have a high level of internal self-efficacy, dealing with serious behavioural problems in the absence of sufficient external support can still result in long-term cognitive burnout. Strong social support helps to reinforce parental self-efficacy and thus enhances its positive impact on psychological well-being (Weiss et al., 2013).

In countries with a collectivist culture such as Pakistan, extensive family networks and ties within the community provide important informal support (Samadi & McConkey, 2018). Yet social stigma usually causes the families of children with ASD to become socially isolated, thus cutting them off from these supportive networks (Ilias et al., 2018). Only by accepting both of the moderation models can it be seen that it is essential to develop strong formal and informal social support systems if the mental health of caregivers of children with ASD is to be protected.

LIMITATIONS AND SUGGESTION

Although the study offers useful empirical information concerning caregiver mental health, it has a number of limitations. Since data collection was confined to Sargodha, its findings cannot be generally applied to other geographical or socio-economic situations. The fact that the study had a purely quantitative and cross-sectional structure meant that it was not able to capture the detailed qualitative experiences of people's lives and thus ruled out the possibility of determining definite causal relationships between the various factors. Moreover, the use of purposive sampling increased the risk of selection bias, and the dependence on self-reported scales led to possible response and social desirability biases. In order to overcome these limitations, future research must use random sampling methods in order to reduce selection bias and increase the representativeness of the sample. Data collection should be expanded to include a number of different cities and regions in order to improve sample diversity and ensure wider applicability. Researchers should also think about including qualitative or mixed-methods approaches if they want to obtain a more in-depth understanding of the experiences of caregivers. Lastly, longitudinal or experimental research designs should be used so that future studies can better control for confounding variables and thus establish genuine causal relationships over time.

IMPLICATIONS

The study has important long-term consequences for future research, clinical practice, and community support. Since it shows the way in which parental stress, self-efficacy, coping strategies, and social support influence caregiver mental health, the results give a clear guide for developing targeted interventions. Clinical, counseling, and health psychologists may use the mediating function of coping strategies to create programs that teach effective stress management, boost parenting self-efficacy, and lessen anxiety and depression by means of positive cognitive reframing. For researchers, these findings provide a solid empirical basis for investigating caregiver resilience and protective social factors. In practice, the study enables parents of children with ASD to deal more effectively with the difficulties of caregiving by making use of specific coping methods and social resources. Finally, social workers, educational psychologists, and policymakers can put the findings into action by setting up community peer-support networks, offering mindfulness programs, and providing accessible respite care services, thus establishing a more supportive environment for families of children with ASD.

CONCLUSION

The study found that both parental stress and parental self-efficacy have a significant effect on the mental health of parents of children with Autism Spectrum Disorder (ASD). Important indeed is the fact that internal cognitive resilience—provided it is directed via adaptive coping strategies and supported by social support networks—acts as a strong protection against psychological distress. The mediating and moderating pathways that were identified show how important personal competence and community support are in promoting the well-being of caregivers. In the end, helping parents by giving them effective skills, teaching them adaptive coping methods, and making sure they have access to social resources lessens the strain of caregiving, decreases anxiety and depressive symptoms, and helps to build up lasting psychological resilience. By strengthening both internal and external support systems, caregivers are given a renewed feeling of purpose, a sense of mastery, and emotional stability, thus setting the basis for long-term family-centered well-being.

REFERENCES

- Abbeduto, L., Seltzer, M. M., Shattuck, P., Krauss, M. W., Orsmond, G., & Murphy, M. M. (2004). Psychological well-being and domestic responsibilities of mothers of youth with autism, Down syndrome, or fragile X syndrome. *American Journal on Mental Retardation*, 109(3), 237–254. [https://doi.org/10.1352/0895-8017\(2004\)109<0237:PWADRO>2.0.CO;2](https://doi.org/10.1352/0895-8017(2004)109<0237:PWADRO>2.0.CO;2)
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.
- Benson, P. R. (2014). Longitudinal effects of functioning on maternal depressed mood in families of children with ASD: The mediating role of stress and coping. *Journal of Autism and Developmental Disorders*, 44(7), 1537–1550. <https://doi.org/10.1007/s10803-013-2018-3>
- Canty-Mitchell, J., & Zimet, G. D. (2000). Psychometric properties of the Multidimensional Scale of Perceived Social Support in urban adolescents. *American Journal of Community Psychology*, 28(3), 391–400. <https://doi.org/10.1023/A:1005109522457>
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310–357. <https://doi.org/10.1037/0033-2909.98.2.310>
- Compas, B. E., Jaser, S. S., Bettis, A. H., Watson, K. H., Gruhn, M. A., Dunbar, J. P., Williams, E., & Thigpen, J. C. (2017). Coping, emotion regulation, and psychopathology in childhood and adolescence: A meta-analysis and narrative review. *Psychological Bulletin*, 143(9), 939–991. <https://doi.org/10.1037/bul0000110>
- Estes, A., Olson, E., Sullivan, K., Greenson, J., Winter, J., Dawson, G., & Munson, J. (2013). Parenting stress and psychological functioning in families of children with autism spectrum disorder and other developmental delays. *Research in Autism Spectrum Disorders*, 7(7), 829–833. <https://doi.org/10.1016/j.rasd.2013.03.007>
- Guimond, F. A., Lévesque, M., & Sullivan, S. (2022). Parental self-efficacy and psychological distress in parents of children with neurodevelopmental disorders: A systematic review. *Journal of Autism and Developmental Disorders*, 52(4), 1720–1735. <https://doi.org/10.1007/s10803-021-05060-1>
- Hastings, R. P., & Brown, T. (2002). Behavior problems of children with autism, parental self-efficacy, and mental health. *American Journal on Mental Retardation*, 107(3), 222–232. [https://doi.org/10.1352/0895-8017\(2002\)107<0222:BPOCWA>2.0.CO;2](https://doi.org/10.1352/0895-8017(2002)107<0222:BPOCWA>2.0.CO;2)
- Hastings, R. P., Kovshoff, H., Brown, T., Ward, N. J., Degli Espinosa, F., & Remington, B. (2005). Coping strategies in mothers and fathers of preschool and school-age children with autism. *Autism*, 9(4), 377–391. <https://doi.org/10.1177/1362361305056078>
- Hayes, S. A., & Watson, S. L. (2013). The impact of parenting stress: A meta-analysis of studies comparing the levels of stress experienced by mothers of children with autism spectrum disorder and mothers of children with other disabilities. *Journal of Autism and Developmental Disorders*, 43(3), 629–642. <https://doi.org/10.1007/s10803-012-1604-y>
- House, J. S. (1981). *Work stress and social support*. Addison-Wesley.
- Ilias, K., Liaw, J. H. J., Cornish, K., Park, M. S. A., & Golden, K. J. (2018). Wellbeing of mothers of children with "autism spectrum disorder" in Southeast Asia: A systematic review. *International Journal of Developmental Disabilities*, 64(3), 162–176. <https://doi.org/10.1080/20473869.2018.1432288>
- Jones, T. L., & Prinz, R. J. (2005). Potential roles of parental self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review*, 25(3), 341–363. <https://doi.org/10.1016/j.cpr.2004.12.004>
- Karst, J. S., & Van Hecke, A. V. (2012). Parent and family impact of autism spectrum disorders: A review and proposed model for intervention evaluation. *Clinical Child and Family Psychology Review*, 15(3), 247–277. <https://doi.org/10.1007/s10567-012-0119-6>
- Koren, P. E., DeChillo, N., & Friesen, B. J. (1992). Measuring empowerment in families whose children have emotional disabilities: A brief questionnaire. *Rehabilitation Psychology*, 37(4), 305–321. <https://doi.org/10.1037/h0091330>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.
- McConnell, D., Savage, A., & Breitzkreuz, R. (2015). Resilience in families raising children with disabilities and behavior problems. *Research in Developmental Disabilities*, 35(4), 833–848. <https://doi.org/10.1016/j.ridd.2013.12.018>
- McCubbin, H. I., Olson, D. H., Larsen, A. S., Corcoran, K., & Fischer, J. (2000). *Family crisis orientated personal evaluation scales [F-COPES]*. In K. Corcoran & J. Fischer (Eds.), *Measures for clinical practice: A sourcebook* (3rd ed., Vol. 1, pp. 294–297). Free Press.
- Papadopoulos, A., Fouska, S., Tafiadis, D., Trimmis, N., Plotas, P., & Siafaka, V. (2023). Psychometric properties of the Greek version of the Autism Parenting Stress Index (APSI) among parents of children with autism spectrum disorder. *Diagnostics*, 13(20), 3259. <https://doi.org/10.3390/diagnostics13203259>
- Samadi, S. A., & McConkey, R. (2018). Perspectives on autism in non-Western cultures. *Current Developmental Disorders Reports*, 5(4), 217–223. <https://doi.org/10.1007/s40474-018-0150-1>
- Schnabel, A., Youssef, G. J., Hallford, D. J., Hartley, E. J., McGillivray, J. A., Stewart, M., Austin, D. W., & Austin, K. L. (2020). Psychopathology in parents of children with autism spectrum disorder: A systematic review and meta-analysis. *Clinical Psychology Review*, 81, Article 101896. <https://doi.org/10.1016/j.cpr.2020.101896>
- Siklos, S., & Kerns, K. A. (2006). Assessing the needs of mothers and fathers of children with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 36(7), 921–933. <https://doi.org/10.1007/s10803-006-0129-2>
- Taggart, F., Friede, T., Weich, S., Clarke, A., Johnson, M., & Stewart-Brown, S. (2013). Cross-cultural evaluation of the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) — a mixed methods study. *Health and Quality of Life Outcomes*, 11(1), 27. <https://doi.org/10.1186/1477-7525-11-27>
- Weiss, J. A., Cappadocia, M. C., MacMullin, J. A., White, K., & Rodgers, R. (2013). The neutralizing role of resilience in the relationship between behavior problems and parent distress in autism spectrum disorder. *Research in Autism Spectrum Disorders*, 7(11), 1402–1409. <https://doi.org/10.1016/j.rasd.2013.08.011>
- Wittkowski, A., Dowling, H., & Smith, D. M. (2017). Does the measure matter? A systematic review of measures of maternal self-efficacy in the postpartum period. *Journal of Affective Disorders*, 208, 303–318. <https://doi.org/10.1016/j.jad.2016.08.060>