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Mental Health Outcomes in Parents of Children with Autism: Implications for Practice and Policy

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ABSTRACT

The relationship between parental mental health outcomes including anxiety depression and stress regarding parents of children with autism exists in abundance in academic literature although Pakistan faces limited research on this topic specifically when it comes to anxiety as a mediator between predictor stress and outcome depression. Therefore, the objective of this study is to overcome this gap. The research intends to address the current literature gap of knowledge through effects-based policy recommendations and support upcoming academic studies. Parents of at least one child with autism below eighteen years old participated in this research through purposive sampling within a cross-sectional correlational design. The study included 222 participants: 152 mothers and 70 fathers, with a mean age of 38.09 years (SD = 9.63). Hayes Process 4.2, Model 4 confirmed positive and significant mediating role of anxiety between stress and depression. Research analysed findings linked with autism-related literature while proposing social welfare measures through counselling services as well as autism spectrum disorder education and peer networks and mental health assistance programs combined with educational guidance for children and advocacy for government-operated autism education facilities. The government needs to establish effective policies which enable on-going parental counselling support together with effective autism treatment solutions for children.

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1. Introduction

Autism is a lifelong social communication and behavioral difficulties for the child and their familial relationships (Brown et al., 2024; Joon, Kumar, & Parle, 2021). Autism spectrum disorder, signs and symptoms include difficulties in social interaction and verbal/nonverbal expression, engagement in repetitive behaviors, strong fixations on specific interests or routines, and distress when faced with changes. Additionally, individuals may exhibit limited reciprocity in relationships and challenges with forming social connections. These symptoms cause clinical distress not only in their functioning but also in caregivers and parents, leading to mental health outcomes like stress, depression and anxiety, according to previous studies (Frazier et al., 2012; Lord et al., 2020; Mattila et al., 2011; Peters & Matson, 2020; Yaylaci & Miral, 2017). Stress can be defined as the feeling of pressure and emotionally strain, it is a sort of psychological discomfort or mental tension caused by difficult circumstances, while anxiety can be described as tension, worry, fear, feeling of dread over, uneasiness and restlessness due to stress, depression can be defined as feeling of hopelessness, not taking interest in daily life activities, upset mood most of the day that may cause overeating or lack of appetite, suicidal thoughts and even attempts, indecisiveness and clinical distress in daily routine (Sarkar, Gupta, & Menon, 2017; Wang et al.,

2022; Wheatley, 1997). ASD kids' Parents report higher stress levels compared to parents of normal kids due to the intensive nature of autism care management (Bonis, 2016). (Costa, Steffgen, & Ferring, 2017) found parents caring for children diagnosed with ASD reported diminished subjective well-being along with elevated physiological stress levels than parents of normal kids.

(Rivard et al., 2014) conducted research that demonstrated fathers dealing with children with ASD recorded elevated stress markers compared to mothers when the severity of the child's condition and the parent-child relationship were factored into paternal stress patterns. The study conducted by (Al-Oran & AL-Sagarat, 2016) demonstrated that demographic features, particularly the combination of maternal age, child age, and the timing of the autism diagnosis, affect parental stress. The effectiveness of coping strategies, which (Mancil, Boyd, & Bedesem, 2009) reviewed for managing ASD parenting stress, remains unclear. The research conducted by (Bitsika & Sharpley, 2004) showed that behavioral management challenges affected over 90% of parents, while severe anxiety and depression impacted 46% and 67% of parents, respectively. The research outcomes identified family support and caregiver skills, along with a healthy mental state among parents, as major stress reduction factors. Autism symptom severity proved less significant than parental perceptions of their child's behavior, combined with social support and socioeconomic factors, in predicting parents' stress, anxiety, and depression, according to (Falk, Norris, & Quinn, 2014). There is amble of literature regarding parental stress, anxiety and depression however, such studies are scares in Pakistan specifically when it comes to mediating role of anxiety between predictor stress and predictor stress and outcome depression among parents of children with autism. Therefore, this study is carried out to fill this gap in the current literature and provide implications and policies.

1.1. Hypothesis

1. Anxiety is likely to mediate significantly between predictor stress and outcome depression among parents of children with autism.

2. Method

2.1. Research Design

The study adopted a cross-sectional correlational research design.

2.2. Sampling

A purposive sampling technique was employed to collect data.

2.3. Inclusion Criteria

The participants must have at least one child diagnosed with autism from a reputable special needs children's hospital or institute; the child must be under 18 years of age; and the parents must have at least an intermediate level of qualification.

2.4. Instrument

Depression Anxiety Stress Scale (DASS) (Lovibond & Lovibond, 1995). The 21-item DASS uses a four-point Likert scale (0-4I). It includes three subscales: depression ($\alpha = 0.88$), anxiety ($\alpha = 0.82$), and stress ($\alpha = 0.90$).

2.5. Ethical Consideration

The study adhered to the APA 7 ethical code of conduct. First, permission was sought from the department for data collection. Subsequently, the author was contacted to obtain permission to use the questionnaire in the study. Upon receiving the author's permission, the questionnaire was combined with a demographic questionnaire and consent form. The participants were approached through purposive sampling via visits to different special needs children's institutes. The confidentiality of all participants was maintained, and written consent was obtained from each participant.

3. Results

The demographic table depicts participants' mean age of 38.09 years and a standard deviation of 9.63. Moreover, the majority of participants were mothers (152, 69%), followed by a minority of fathers (70, 31%) of children with autism. The qualification categories reveal that 99 (45%)

participants had an intermediate qualification, followed by 73 (33%) with a bachelor's degree, 27 (12%) with a master's degree, and 23 (10%) with a PhD.

Table 1: Participants' Characteristics (N=222)

Characteristics	Frequency	Percentage	Mean	Standard Deviations
Age			38.09	9.63
Parents of Children with Autism				
Women	152	69		
Men	70	31		
Qualification				
Intermediate	99	45		
Bachelor	73	33		
Master	27	12		
PhD	23	10		

Table 2: Correlational Analysis (N=222)

Variables	1	2	3
1.Stress	-	.60**	.40**
2.Anxiety		-	.54**
3.Depression			-

Note. **$p<.01$

The above table shows a significant positive relationship between stress, anxiety, and depression among parents of children with autism.

Table 3: Regression Analysis (N=222)

	Consequences							
	Anxiety (M)				Depression (Y)			
Antecedents		B	SE	P		B	SE	P
Stress (X)	A	.62	.05	.000	c'	.16	.10	.000
Anxiety (M)	-				β	.66	.09	.000
Constant	I	2	.32	.000	I	2.74	.51	.000
	R^2=.36 P<.001	F(1, 220)=123.91			R^2=.31	F(2, 219)=48.41		P<.001

Note. ***$p<.001$

According to the table above, there is a significant positive direct effect of stress on anxiety (*β=.62***, SE=.05, p<.001*). Furthermore, the direct effect of stress on depression is also significantly positive (*β=.61***, SE=.10, p<.001*). Moreover, the effect of anxiety on depression is significantly positive as well (*β=.66***, SE=.09, p<.001*).

Table 4: Indirect Effect (N=222)

Indirect Path	B	B	LLCI	ULCI
Anxiety	.16	.41	.18	.39

The indirect effects indicate that anxiety significantly mediates the effect of the predictor, stress, on the outcome, depression, among parents of children with autism.

4. Discussion

There is a limited literature on anxiety as a mediator between stress and depression among parents of children with autism. This study aims to address this gap, providing insights for parents and contributing valuable literature for further academic research. The positive association and significant association was found between stress, anxiety and depression among parents of kids with autism. The results of our study are congruent with a previous study conducted in Oman, which found an interrelationship between anxiety, stress, and depression, showing a significant and positive relationship among caretakers of kids with autism (Al-Farsi et al., 2016). Another study conducted in Kazakhstan on 146 parents of children with autism aligns with our study's findings. According to the study, parents of children with autism report higher levels of stress, anxiety, and depression than those with normal kids (Alibekova et al., 2022). Anxiety, depression, and stress among parents of children with autism are closely linked due to several factors. These include the constant challenges of caregiving, leading to exhaustion, and worries about the child's future. Many parents face a lack of support from peers and family, as others may not understand the needs of children with autism, resulting in feelings of isolation and depression. Sleep difficulties further worsen mental health, while

financial pressures from expensive therapies add to the strain. In countries like Pakistan, cultural factors such as limited awareness, societal judgment, and insufficient guidance contribute to heightened psychological distress for parents.

The assumption of the study is supported by mediation analysis conducted via Hayes Process 4.1, Model 4, depicts the significant and positive role of anxiety between the predictor stress and the outcome depression among the parents of children with autism. The results of our study is aligns with another study that reflects that anxiety, and the worry associated with blaming the child's condition, mediates the association between stress as a predictor and depression as an outcome among 103 parents of children with prenatal stroke (Bemister et al., 2015). According to recent and past studies, anxiety has been reported to elevate stress, leading to depressive symptoms among individuals with less social support, fewer coping skills, and those who are prone to daily challenges (Anisman & Zacharko, 1982; Augusto-Landa, García-Martínez, & León, 2024; Bromberger & Matthews, 1996). In Pakistan, cultural factors such as limited awareness of neurodevelopmental disorders and societal judgment of a child's behavior contribute to this dynamic. Stress impairs cognitive coping mechanisms, leading to anxiety, which then escalates into depressive symptoms. Daily challenges, including communication and behavioral issues in kids with autism, further strain parents. This, combined with ineffective emotional regulation and low resilience, increases their vulnerability to poor mental health outcomes.

4.1. Limitation and Recommendation

The study involved 222 participants, which may restrict its generalizability to all parents of children with autism. Future research should include larger samples. Another constraint was the use of a cross-sectional design; longitudinal studies are recommended to observe changes over time. Although gender and qualification differences were examined, imbalanced participation highlights the need for better category representation in future studies. Incorporating socioeconomic factors such as status and residency (urban vs. rural) could provide deeper insights. Comparing demographic variables with mental health outcomes may offer a broader perspective, enrich academic literature, and deliver practical implications for parents managing distress.

4.2. Implications

There is need for multiple interventions, such as awareness programs by mental health professionals in the community, through seminars, workshops, and webinars, as there is a lack of awareness about autism spectrum disorder in Pakistan. These seminars should include general public as well to enhance the support system for parents of children with autism as the awareness is limited. Moreover, encouragement should be provided for parents to seek mental health professional help and engage in psychotherapy to address any mental health challenges they may face. Parents should be given proper guidelines on how to effectively manage their children's behavior, as children with autism are not at fault for being born with a developmental difference. Effective management techniques can help, such as creating structured routines, as children with autism often thrive on consistency. It is recommended to develop a manageable daily schedule for the child and use visual cues to help them follow the routine until they become accustomed to it. Consistency in reinforcing desirable behaviors will increase the likelihood of these behaviors becoming consistent. The government needs to establish more special education institutes, as there are very few public institutions, and private ones are often prohibitively expensive. The government should also develop effective programs to overcome these adverse challenges.

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