

THE IMPACT OF PARENTAL STRESS ON THE IMPLEMENTATION OF BEHAVIORAL MANAGEMENT TECHNIQUES AT HOME

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Abstract

Raising a child with special needs presents exceptional challenges, especially in executing Behavior Management Techniques (BMTs) at home. This explanatory research examines the connection between the home-based application of BMTs and parental stress in the Pakistani context. Through a purposive sampling technique, 150 parents who used behavior management techniques at home were selected. The Parents' Stress Checklist was used to assess parents' stress levels, with additional questions to understand which parents use behavior management techniques at home and how. Results reveal that parents experience high levels of stress during implementation, which may delay the efficiency of interventions. Particularly, no significant gender differences were found in the described stress levels, signifying that both fathers and mothers are similarly affected. These outcomes emphasize the essential role of culturally sensitive, stress-reducing support systems to improve the accomplishment of home-based interventions and overall family well-being.

Keywords: Behavior Management Techniques (BMTs), Parents, Stress, Home-Based Intervention.

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Introduction

Behavioral methods are important to regulate and produce improved challenging behaviors in children (Sartinah et al., 2024), especially those diagnosed with developmental disorders or behavioral disorders such as Autism Spectrum Disorder (ASD), Attention Deficit Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), and other behavior-related situations. These techniques, fluctuating from time-out to positive reinforcement techniques, are extensively used in the home environment, primarily by caregivers or mainly by parents (Brookman-Frazee et al., 2009; Clauser et al., 2021; Rehman et al., 2022a). The success of these strategies, still, is deeply reliant on their constant, particular, and appropriate application. Implementation, loyalty, and Parental devotion become an important part in shaping whether such interventions produce the required results (Fang et al., 2024).

While most studies have fixated on the progress and effectiveness of behavioral management techniques, relatively fewer studies have discovered the human variables that disturb execution, specifically in a realistic environment like the home-based environment (Clauser et al., 2021; Giannotti et al., 2022). Between these variables, parental stress stands out as one of the more important, understudied impacts. Parenting stress is often sensitive in families dealing with behavioral problems,

generating a cycle where high stress decreases active implementation of behavioral techniques, which aggravate child behavior and intensify cumulative stress. (Rehman et al., 2023b; Spinelli et al., 2021).

This parental stress refers to the feeling that the demands of parenting are greater than the emotional, physical, or mental resources available to manage them (Abidin, 1995). This type of stress can arise from various challenges, as highlighted by Cordts et al. (2020), including a child's difficult behavior, financial struggles, limited support systems, or the parent's mental health concerns. Behavioral techniques, often rooted in principles of behavioral psychology in operant conditioning, are commonly used to manage such challenges. These strategies include rewarding positive behaviors (positive reinforcement), ignoring negative behaviors to reduce them (extinction), using time-outs, creating token systems for rewards, and encouraging alternative, appropriate behaviors through differential reinforcement (Spinelli et al., 2021). However, effectively applying these methods demands consistency, calmness, and self-control, qualities that can be significantly affected when parents are under continuous or intense stress.

Abidin (1995) first evaluated the parental stresses and experiences in their caregiving roles. He broke down parenting stress into three main areas. The first, Parental Distress, relates to internal stressors such as feeling overwhelmed, experiencing symptoms of depression, or dealing with relationship issues. The second was 'the Parent-Child Dysfunctional Interaction', which belongs to the parental sense that their relationship with their child is strained. The third subscale, named 'Difficult Child', focuses on how challenging the parent perceives the child's behavior. Consistently found in literature that higher levels of stress in these areas are linked to less effective parenting (Bassi et al., 2021; Neece et al., 2012; Rehman & Sajjad, 2025). Such as harsher discipline, emotional withdrawal, and reduced involvement.

Behavior Techniques and Implementation Challenges

Behavioural strategies are effective in improving children's behavior, particularly when they are applied consistently, in the correct settings, and as taught. However, sustaining this level of consistency, which is known as fidelity, can be difficult without ongoing support (Ginsburg et al., 2021). Over time, various factors often get in the way, such as parents feeling overwhelmed, lacking time or energy, questioning whether the techniques are working, or juggling multiple responsibilities at home. For example, Hubert and Aujoulat (2018) reported that around 60% of parents who had initially adopted these strategies stopped using them within six months, primarily because they felt exhausted, discouraged, or emotionally drained.

Bidirectional Nature of Stress and Behavior

A study by Lecavalier et al. (2006) showed that the relationship between child behavior and parental stress works both ways. He further highlighted that children with more intense behavioral challenges often contribute to a more stressful parenting experience. At the same time, when parents are under significant stress, they may react more harshly or inconsistently, which can further escalate the child's behavior problems (Luo et al., 2024; Rehman & Sajjad, 2024). Studies focusing on parents of children with ASD have found that higher levels of parental stress are linked to less success in behavioral interventions (Curley et al., 2023; Estes et al., 2021; Rehman et al., 2023a; Wahdan et al., 2023). However, when parents received support for managing their stress alongside training in behavioral strategies, they were more likely to use the techniques effectively. They reported more positive outcomes, as addressed by MacKenzie and Eack (2022).

Socioeconomic and Environmental Factors

Several factors make parenting even more stressful and reduce the chances of successful intervention, as highlighted by Spinelli et al. (2021). Such as being a single parent, having limited financial resources, or lacking support from extended family. In households facing chronic stress, basic needs like securing food or stable employment often take priority over structured behavioral practices, which is entirely understandable (Babore et al., 2023). Cultural beliefs can also influence how parents

respond to behavioral strategies. In some communities, techniques like time-outs or deliberately ignoring unwanted behavior may conflict with traditional parenting values, leaving parents feeling torn between professional guidance and cultural norms (Ghani & Khan, 2018; Sajjad et al., 2023).

Intervention Models Addressing Parental Stress

Several parent training models have begun incorporating stress-reduction components to enhance both parental well-being and the effectiveness of behavior interventions (Wahdan et al., 2023). For example, the Incredible Years Program integrates group therapy elements to help reduce feelings of isolation among parents. The Triple P—Positive Parenting Program includes modules focused on stress management techniques such as relaxation and self-regulation. Similarly, Parent-Child Interaction Therapy (PCIT) places equal emphasis on providing emotional support to parents through coaching, alongside ensuring fidelity in the use of behavior techniques. Research supports the effectiveness of these integrative approaches, showing that they lead to improvements in both parental well-being and children's behavior outcomes (Chacko et al., 2016).

Theoretical Frameworks

This study draws on two major theoretical perspectives: Bandura's Social Cognitive Theory and Bronfenbrenner's Ecological Systems Theory. Bandura's model emphasizes the role of self-efficacy in shaping behavior. In the context of parenting, high stress can reduce parents' confidence in managing their child's behavior, making it more difficult for them to apply behavioral techniques consistently. Bronfenbrenner's theory complements this by placing child development within a complex web of environmental systems—from family life and work settings to broader societal and cultural influences. It highlights that parental stress is not just a response to a child's behavior but is influenced by many external pressures. Together, these theories suggest that effective interventions must consider the parents' broader life context, rather than just focusing on teaching specific behavioral methods.

In Pakistan, parents often face long working hours, joint-family expectations, and limited support, which can lower their confidence (self-efficacy) in managing their child's behavior (Bandura). For example, a working mother may struggle to apply positive behavior strategies consistently due to fatigue and household demands. Bronfenbrenner's theory shows that this stress comes from multiple systems—family norms, workplace pressures, and cultural expectations. Therefore, interventions must address these broader influences, not just teach behavior-management techniques.

Objectives of the Study

- To identify the level of stress among parents implementing behavior management techniques at home.
- To find the gender discrepancy in the stress level of parents who implement behavior management techniques at home.

Statement of the Problem

Even after receiving formal training in behavioral techniques, many parents find it challenging to apply these strategies consistently over time. One of the most common problems is inconsistency in using the methods, which not only makes them less effective but also leads to worsening behavior in the child. Research has often pointed to high levels of parental stress as a key factor behind this inconsistency, yet this relationship has not been thoroughly examined through structured, empirical studies. While most intervention programs focus on teaching the techniques themselves, there is limited attention given to whether parents are mentally and emotionally prepared to apply them in real-life situations.

Significance of the Study

Understanding how parental stress affects the use of behavior strategies at home is crucial. It highlights an important truth: without addressing the emotional and psychological strain parents face, even the best-designed interventions may not succeed. This perspective encourages professionals—therapists, educators, and support workers—to look beyond simply teaching techniques and focus on supporting parents as whole individuals. It also shifts the narrative away from blaming parents for inconsistency, recognizing that the daily demands they face can be truly overwhelming. Prioritizing parental well-being helps improve children’s outcomes and strengthens family dynamics, which helps to minimize wider social and economic pressures.

Research Gap

While research has clearly shown that parental stress can interfere with the use of behavior strategies, many parent training programs still do not fully address this critical factor. These programs tend to focus on the techniques themselves—the “what” and “how” of behavior management—without acknowledging the emotional and mental strain parents often face. They seldom prepare families for the messy, real-life situations they deal with daily, such as handling a meltdown while trying to get out the door or sticking to routines under financial stress. Moreover, long-term support is often lacking, leaving parents without guidance when things get tough or situations change. Support for mental health concerns like anxiety or depression is also frequently missing, which can further compromise the long-term success of these interventions.

Research Methodology

This explanatory study applies a quantitative research design to explore the level of stress among parents who use BMTs with their children at home. The targeted population was the parents who use BMTs at home to improve their children’s behavior. Through systematic sampling techniques, 150 parents who were using BMTs at their homes were selected; among them, there were 90 female participants and 40 male participants, as shown in Table 1.

Table 1: *Demographic Characteristics of Parents*

		N	M	SD
Gender	Male	60 (40%)	1.74	.440
	Female	90 (60%)		
Age	Below 25	15 (10%)	2.43	.915
	25 to 35	79 (52.7%)		
	36 to 45	37 (24.7%)		
	46 to 55	14 (9.3%)		
	56 above	5 (3.3%)		

The Parents' Stress Checklist (PSC), a standardized instrument based on 18 items, was used to assess the level of stress among parents. The original tool demonstrated strong reliability, with a Cronbach’s alpha of 0.83 and a six-week test–retest reliability of 0.81 (Berry & Jones, 1995). In the present study, pilot testing with 20 parents produced a Cronbach’s alpha of 0.79, indicating acceptable internal consistency for this sample. A few additional self-structured questions were added to the questionnaire to better understand the behavior techniques they applied with their children, in addition to demographic information. The data were collected from parents on the spot after signing the informed consent. However, data privacy and confidentiality were strictly maintained, following the ethical guidelines.

Findings

In Table 2, findings reveal that among 150 parents, only 84% received behavior management training or guidance from psychologists/therapists (68.7%). However, among them, the majority of the parents were very confident (36.7%) and somewhat confident (28.7%) in their understanding of behavior management techniques; they applied these techniques confidently with their children (very confidently, 34%, somewhat confidently, 22.7%). However, the majority of parents (68.7%) were using the positive reinforcement techniques, which were reported as slightly effective (30.67%) to very effective (31.33%). Meanwhile, the majority of the parents (74%) were in favor of using punishment, such as the loss of privileges (44%).

Table 2: *Behavior Management Techniques Used by Parents*

		N	%		
Have you received any training or guidance on how to implement behavior	Yes	126	84.0		
	No	24	16.0		
	Total	150	100.0		
<i>If yes, who gave you that training</i>	Psychologists /Therapists	103	68.7		
	School	18	12.0		
	Online Course	18	12.0		
	Other	11	7.3		
<i>Confident in Using Behavior Management Technique</i>	Very Confident	Somewhat Confident	Neutral	Not Confident	Not at all Confident
Are you confident in your understanding of behavior management techniques?	55 (36.7%)	43 (28.7%)	30 (20%)	20 (13.3%)	2 (1.3%)
Are you confident in applying behavior management techniques at home?	51 (34%)	34 (22.7%)	36 (24%)	24 (16%)	5 (3.3%)
<i>Effectiveness of Behavior Management Techniques</i>				N	%
Which behavior management techniques do you mainly use with your child?	Positive reinforcement			103	68.7
	Negative reinforcement			11	7.3
	Timeout			5	3.3
	Token economy			8	5.3
	Ignore unwanted behavior			23	15.3
Do you think the technique you are using with your child is working effectively?	Not at all effective			14	9.33%
	Slightly effective			46	30.67%
	Moderately effective			43	28.67%
	Very effective			47	31.33%
	Extremely effective			-	-
How often do you use this technique?	Always			29	19.3%
	Often			51	34%
	Sometime			52	34.7%
	Rarely			14	9.3%
	Never			4	2.7%
<i>Punishment as a Behavior Management Technique</i>					

Are you in favor of using punishment as part of a behavior management technique?	Yes	111	74%
	No	39	26%
	To some extent	-	-
If yes, please indicate which type of punishment you prefer as a behavior management technique.	Loss of privilege	66	44%
	Verbal reprimand	40	26.7%
	physical punishment	9	6%
	Time out	21	14%
	Other	14	9.3%

Objective 1: To identify the level of stress among parents implementing behavior management techniques at home.

Research Hypothesis 1 (H₁): Parents who implement behavior management techniques at home experience a high level of stress.

Null Hypothesis (H₀): Parents who implement behavior management techniques at home do not experience a high level of stress.

Table 3 reports the one-sample t-test for the parental stress of those who used BMT with their children. A significant and huge positive mean in PSC scores ($M = 3.51$) was found among parents. Further, scores suggest a significant presence of parental stress ($t = 97.369, p < .05$), practically and substantially different from the test value (0). This indicates a high stress level, with a considerable effect size (Cohen's $d, 7.951$), reinforcing the strength. Thus, the research hypothesis, 'parents who implement behavior techniques at home experience a high level of stress', was accepted.

Table 3: One-Sample t-test for Parental Stress

		PSC
One-Sample Test	M	3.51
	SD	.441
Test Value = 0	T	97.379
	df	149
	Sig. (2-tailed)	.000
	Mean Difference	3.509
	95% Confidence Interval of the Lower Difference	3.44
	Upper	3.58
One-Sample Effect Sizes		
		Cohen's d
		Hedges' correction
Standardizer ^a		.441
Point Estimate		7.951
95% Confidence Interval	Lower	7.034
	Upper	8.866

a. The denominator used in estimating the effect sizes.

Cohen's d and Hedges' correction use sample SD, but Hedges' correction uses a correction factor too.

Figure 1 shows that parental stress scores are approximately normally distributed, with most parents falling around the mean score of 3.5. The distribution indicates moderate stress levels overall, with few parents reporting very low or very high stress.

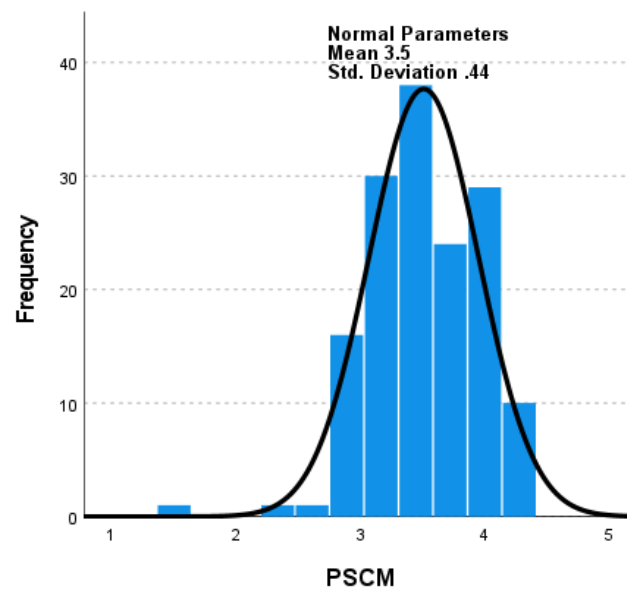


Figure 1: *Level of Parental Stress*

Objective 2. To identify the gender discrepancy in the stress level of parents who implement behavior management techniques at home.

Research Hypothesis 2 (H₂): There is a gender discrepancy found in the stress level of parents who implement behavior management techniques at home.

Null Hypothesis (H₀): There is no gender discrepancy found in the stress level of parents who implement behavior management techniques at home.

Table 4 reports the independent sample t-test for the gender discrepancy in parental stress. Results reveal that no significant gender difference exists, as the p-value is greater than .05. Stress levels between male and female parents are equal across genders, $t(148) = -0.138$, $p = .890$. Whereas the difference in mean stress scores is minimal across gender (-0.010), indicating no significant differences.

Table 4: *Independent Sample t-test*

		Equal variances assumed
Levene's Test for Equality of Variances	F	1.623
	Sig.	.205
t-test for Equality of Means	T	-.138
	Df	148
	Sig. (2-tailed)	.890
	Mean Difference	-.010

Std. Error Difference		.074
95% Confidence Interval of the Difference	Lower	-.156
	Upper	.136

Discussion

The study revealed that parents of children with special needs face high levels of stress while trying to apply BMTs at home. This finding is in line with earlier studies, which suggest that parenting stress often stems from managing challenging behaviors, having limited resources, and dealing with inconsistent or insufficient support systems (Balouch et al., 2025; Fang et al., 2024; Masud et al., 2019). Elevated stress can significantly impact the successful use of BMTs by making it harder for parents to stay calm, consistent, and emotionally regulated (Hayes & Watson, 2013; Khan & Ahmed, 2015; Osborne et al., 2008; Sajjad et al., 2019).

An important aspect of this study's findings is the lack of significant gender differences in stress levels. Both mothers and fathers reported similar levels of stress, supporting several studies that showed caregiving burdens are now more commonly shared between parents (Akram & Najam, 2014; Clauser et al., 2021; Masud et al., 2019; Rehman et al., 2022b; Saleem et al., 2025). Furthermore, these findings point out the need for culturally sensitive support systems in Pakistan to address children's behavioral challenges and prioritize the emotional health of parents. The current study shows that parents of children with special needs experience high stress when applying BMTs at home, largely due to limited resources, demanding routines, and inadequate professional support. Consistent with local research, elevated stress makes it harder for parents to remain patient and consistent in managing challenging behaviors. Interestingly, no significant gender differences were found, suggesting that caregiving responsibilities are increasingly shared by both mothers and fathers. These findings highlight the need for culturally responsive services, such as community support, accessible training, and school-home collaboration, which may help to reduce parental stress and strengthen behavior management practices in Pakistani families.

Conclusion

Thus, the current study concludes that parental stress plays a vital role in preventing the successful implementation of home-based BMT for children with special needs in Pakistan. Both parents experience a similar level of stress regardless of gender, which serves as a significant barrier. Some internal and external challenges, including social stigma, inadequate training, and limited access to resources and support services, further intensify these stresses. Future studies should explore how combining stress-reduction and behavioral interventions impacts outcomes. Additionally, examining culturally specific coping mechanisms should also be explored by researchers, such as support from extended family or faith-based resources.

Future studies should explore culturally tailored parenting programs that support families of children with special needs in Pakistan. More research is needed to examine how community resources, school involvement, and professional guidance can reduce parental stress and improve the use of BMTs at home. Expanding the sample to different regions and socioeconomic groups would also help develop more comprehensive and inclusive support strategies.

Recommendations

However, the study recommends integrating stress-reduction into BMT, including practical, easy-to-use stress management strategies for parents and trainers, for example, brief mindfulness exercises, structured problem-solving, and peer support. Furthermore, culturally adapted BMT should be introduced to help parents understand the realities of high stress. Additionally,

there is a need to improve system-level support, especially for policymakers to provide services like respite care, financial assistance, and accessible community-based resources to ease the burden on families.

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References

- Abidin, R. R. (1995). *Parenting Stress Index: Professional manual* (3rd ed.). Psychological Assessment Resources.
- Akram, B., & Najam, B. (2014). Parental stress and economic burden for families of children with intellectual disability in Pakistan. *Journal of Intellectual Disabilities, 18*(2), 176–185.
- Babore, A., Trumello, C., Lombardi, L., Candelori, C., Chirumbolo, A., Cattelino, E., & Morelli, M. (2023). Mothers' and children's mental health during the COVID-19 pandemic lockdown: The mediating role of parenting stress. *Child Psychiatry & Human Development, 54*(1), 134–146.
- Balouch, G. A., Saleem, S., & Rehman, F. (2025). Open, adapt, and achieve digital doors to learning: Exploring how e-learning platforms and professional growth transform learning for students with special needs. *The Progress: A Journal of Multidisciplinary Studies, 6*(1), 109–120.
- Bassi, G., Mancinelli, E., Di Riso, D., & Salcuni, S. (2021). Parental stress, anxiety, and depression symptoms associated with self-efficacy in paediatric type 1 diabetes: A literature review. *International Journal of Environmental Research and Public Health, 18*(1), 152.
- Berry, J. O., & Jones, W. H. (1995). The parental stress scale: Initial psychometric evidence. *Journal of Social and Personal Relationships, 12*(3), 463–472.
<https://doi.org/10.1177/0265407595123009>
- Brookman-Frazee, L., Vismara, L., Drahota, A., Stahmer, A., & Openden, D. (2009). Parent training interventions for children with autism spectrum disorders. In *Handbook of parent training: Helping parents prevent and solve problem behaviors* (Vol. 3, pp. 281–306).
- Chacko, A., Jensen, S. A., Lowry, L. S., Cornwell, M., Chimklis, A., Chan, E., & Pulgarin, B. (2016). Engagement in behavioral parent training: Review of the literature and implications for practice. *Clinical Child and Family Psychology Review, 19*(3), 204–215.

- Clauser, P., Ding, Y., Chen, E. C., Cho, S. J., Wang, C., & Hwang, J. (2021). Parenting styles, parenting stress, and behavioral outcomes in children with autism. *School Psychology International*, 42(1), 33–56.
- Cordts, K. M. P., Wilson, A. C., & Riley, A. R. (2020). More than mental health: Parent physical health and early childhood behavior problems. *Journal of Developmental & Behavioral Pediatrics*, 41(4), 265–271.
- Curley, K., Colman, R., Rushforth, A., & Kotera, Y. (2023). Stress reduction interventions for parents of children with autism spectrum disorder: A focused literature review. *Youth*, 3(1), 246–260.
- Estes, A., Yoder, P., McEachin, J., Hellemann, G., Munson, J., Greenson, J., & Rogers, S. J. (2021). The effect of early autism intervention on parental sense of efficacy in a randomized trial depends on the initial level of parent stress. *Autism*, 25(7), 1924–1934.
- Fang, Y., Luo, J., Boele, M., Windhorst, D., van Grieken, A., & Raat, H. (2024). Parent, child, and situational factors associated with parenting stress: A systematic review. *European Child & Adolescent Psychiatry*, 33(6), 1687–1705.
- Ghani, M. W., & Khan, F. (2018). Challenges faced by parents of children with autism spectrum disorder in Pakistan. *Journal of the Pakistan Medical Association*, 68(7), 1067–1071.
- Giannotti, M., Mazzoni, N., Bentenuto, A., Venuti, P., & de Falco, S. (2022). Family adjustment to COVID-19 lockdown in Italy: Parental stress, coparenting, and child externalizing behavior. *Family Process*, 61(2), 745–763.
- Ginsburg, L. R., Hoben, M., Easterbrook, A., Anderson, R. A., Estabrooks, C. A., & Norton, P. G. (2021). Fidelity is not easy! Challenges and guidelines for assessing fidelity in complex interventions. *Trials*, 22(1), Article 372.
- Hayes, S. A., & Watson, S. L. (2013). The impact of parenting stress: A meta-analysis of studies comparing the experience of parenting stress in parents of children with and without autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 43(3), 629–642.
- Hubert, S., & Aujoulat, I. (2018). Parental burnout: When exhausted mothers open up. *Frontiers in Psychology*, 9, 1021.
- Khan, F., & Ahmed, S. (2015). Socio-cultural challenges faced by parents of children with disabilities in Pakistan. *Journal of Research & Reflections in Education*, 9(2), 149–161.
- Lecavalier, L., Leone, S., & Wiltz, J. (2006). The impact of behaviour problems on caregiver stress in young people with autism spectrum disorders. *Journal of Intellectual Disability Research*, 50(3), 172–183.

- Luo, X., Ma, J., & Hu, Y. (2024). A dynamic bidirectional system of stress processes: Feedback loops between stressors, psychological distress, and physical symptoms. *Health Psychology*.
- MacKenzie, K. T., & Eack, S. M. (2022). Interventions to improve outcomes for parents of children with autism spectrum disorder: A meta-analysis. *Journal of Autism and Developmental Disorders*, 52(7), 2859–2883.
- Masud, S., Mufaddel, A., & Jahan, M. (2019). Stress and coping mechanisms among parents of children with autism spectrum disorder: A study from Pakistan. *Journal of Autism and Developmental Disorders*, 49(7), 2800–2809.
- Neece, C. L., Green, S. A., & Baker, B. L. (2012). Parenting stress and child behavior problems: A transactional relationship across time. *American Journal on Intellectual and Developmental Disabilities*, 117(1), 48–66.
- Osborne, L. A., McHugh, L., Saunders, J., & Reed, P. (2008). Parenting stress reduces the effectiveness of early teaching interventions for autistic spectrum disorders. *Journal of Autism and Developmental Disorders*, 38(6), 1092–1103.
- Rehman, F., Sajjad, S., & Saleem, S. (2022a). Mental well-being of adults with autism spectrum disorder. *Human Nature Journal of Social Sciences*, 3(4), 456–466.
- Rehman, F., Sajjad, S., & Saleem, S. (2022b). Camouflaging traits in adults with autism spectrum disorder. *Journal of Social Sciences and Media Studies*, 6(2), 28–41.
- Rehman, F., Sajjad, S., Saleem, S., & Omair, M. (2023a). How technology transforms students: Unpacking its influence on daily life, academic learning, social bonds, and mental wellness. *Journal of Social Sciences and Media Studies*, 7(2), 77–89.
- Rehman, F., Sajjad, S., & Omair, M. (2023b). The art of blending in: Unveiling camouflaging traits in adults with or without autism. *Siazga Research Journal*, 2(4), 264–272.
- Rehman, F., & Sajjad, S. (2024). Mental health in the digital age: Comparing AI counseling with traditional counseling among university students. *Journal of Social Sciences and Media Studies*, 8(2), 9–20.
- Rehman, F., & Sajjad, S. (2025). Bridging technology and therapy: Exploring AI in mental health services through counselors' and students' perspectives. *Online Media and Society*, 6(1), 31–44.
- Sajjad, S., Rehman, F., & Siddiqui, S. (2023). Hidden struggles: Shedding light on depression and anxiety in adults with autism spectrum condition. *Pakistan Journal of Educational Research*, 6(2).
- Sajjad, S., Saleem, S., Rehman, M. F., & Scholar, M. P. (2019). Instructional planning and evaluation techniques used by teachers for their students with special needs. *Journal of Economics and Sustainable Development*, 10(1), 101.

- Saleem, S., Balouch, G. A., & Rehman, F. (2025). Adapting to ability: Educators' perspectives on the benefits and challenges of e-learning for students with special needs. *Educational Research and Innovation*, 5(1), 39–56.
- Sartinah, E. P., Purwoko, B., Wahyuni, E. N., Irmawati, N., Budiati, E. F. R., & Oktafiolita, A. (2024). Improving self-regulated learning skills of students with special needs: Strategies and outcomes. *KONSELOR*, 13(2), 213–221.
- Spinelli, M., Lionetti, F., Setti, A., & Fasolo, M. (2021). Parenting stress during the COVID-19 outbreak: Socioeconomic and environmental risk factors and implications for children's emotion regulation. *Family Process*, 60(2), 639–653.
- Wahdan, M. M., Malak, M. Z., Al-Amer, R., Ayed, A., Russo, S., & Berte, D. Z. (2023). Effect of Incredible Years Autism Spectrum and Language Delays (IY-ASD) program on stress and behavioral management skills among parents of children with autism spectrum disorder in Palestine. *Journal of Pediatric Nursing*, 72, 45–52.