

Role of Perceived Social Support in the Relationship between Parenting Stress and Psychological Well-Being of Mothers of Children with ADHD: A Mediation Model

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Abstract Background: Parenting can be challenging and crucial in child's development. Parenting becomes more complicated when the child has impulsivity and attention issues. Mothers are the child's primary caregivers and they play an essential role in caring for the child. Due to the challenges they face, mothers have stress, which affects their psychological well-being. Social support from friends and family can act as a layer of protection to ease the pressure of parenting and enhance the mother's psychological well-being. Mothers need good psychological well-being, happiness, and good health. **Objective:** To study the effect of parenting stress [PS] on Psychological well-being and the mediating effect of perceived social support[PSS]. **Methodology:** A cross-sectional was conducted among 131 mothers who have a child diagnosed with attention deficit hyperactivity disorder (ADHD). A regression analysis and structural equation model are run to see the relationships between the variables and the mediation effect. **Results:** The results indicate that there is a negative relationship between parenting stress and psychological well-being among mothers of children with ADHD, and Perceived social support mediates the relationship between parenting stress of the mother and the psychological well-being of the mothers of children with ADHD. **Conclusion:** Improving perceived social support and good interpersonal relationships will enhance better management of parenting stress resulting in positive psychological well-being.

Keywords ADHD, Parenting Stress, Perceived Social Support, Psychological Well-Being

1. Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is a Neuro-behavioral disorder with an onset of inattention and hyperactivity that affects the child's daily functioning (National Institute of Mental Health, 2016). Around 7.2% of children are globally diagnosed with ADHD [1]. In India, a study revealed that about 11.3% of primary school children are identified with ADHD [2]. Giving birth and raising a child is stressful and challenging [3,4]. The stressors can be unplanned or unwanted pregnancy, complications during delivery, early parenting, or a child with health problems [5]. Studies directly address the stress and distress of mothers of offspring with Neurodevelopment Disability. Parents of children with hyperactivity have problems like disciplining them, giving instructions, helping in practicing their daily routine, taking them to public places, family gatherings, and so on; apart from the difficulties faced by the mothers in raising the hyperactive child, they also face problems due to other external factors like lower social class, mother's health, relationship problem, social stigma and so on [6].

1.1. Review of Literature

Abidin, [7] in developing the parenting stress [PS] index, considered three main factors responsible for [PS], which are child factors (like hyperactivity, impulsivity, and demandingness), parenting factors (such as depression, self-efficacy, physical health, etc.) and social/situational factors. Deater & Deckard [8] define parenting stress as an “aversive psychological and physiological reaction arising from attempts to adapt to the demands of parenthood.”

Mothers of children with hyperactivity and distractibility have a higher stress level due to factors like insufficient attention and impulsivity than mothers of child without hyperactive problems [9]. Due to the irritability nature of the ADHD child brings stress to the parents [10]. Mothers of children with ADHD [Mothers of CWADHD] face serious health issues due to the PS [11]. Parents of younger children with hyperactivity feel more stress than parents with older children with hyperactivity because of the nature of the disorder that affects the parent-child interactions [12]. Due to poor parent-child interaction and the inability to handle a child who cannot follow instructions, the mother’s self-efficacy is disturbed, and they have a low self-efficacy level. As a result, the psychological well-being of the mothers will be affected [13].

Lin [14] states social support as “perceived or actual instrumental and/or expressive provisions supplied by the community, social networks, and confiding partners”. Social support provides a direct or buffering result on stress, which depends on the nature of the curative support to improve well-being. social support has a positive influence and parental stress has a negative influence on the quality of life. Perceived social support [PSS] is a mediator and moderator between PS and the well-being of life [15]. Moreover, studies state that the higher level of PS is due to lower levels of support [16]. More satisfaction with the quality of life among the parents of a child with a developmental disorder depends upon family interaction and family support [17].

Every person deserves to have a satisfied life in the various aspects [18].

Every person depends on someone and loves to be in a group either a small group such as a family or a large group such as a friends group, peer group, religious group, etc. Family is the small group. Every person is interdependent and happy to render help to their family and friends and also seek help, support and protection from their group such as family, peers, and friends. The basic of the social structure is the interactions among the society [19].

The interaction of an individual with their family, friends, and society and the support the individual gains motivate the person positively and also lowers the negative effect of anything the individual is facing. The support enhances the psychological factors and affects the individual’s physical and cognitive components boosts

their self-efficacy and self-confidence gives a sense of unity and avoids the sense of loneliness [20].

Cappe et al., [21] showed that parents felt satisfied and in charge of the situation when they saw themselves managing ADHD children. Parents of children with ADHD have stated that PS has a negative relationship with social support, particularly care from a partner and self-compassion. In the current study, mothers of children with disorder reported experiencing less PS if they received a lot of positive care, particularly from their spouses and other family members. Parents of children with ADHD who possess high levels of self-compassion also claim they feel less stressed overall [22]. Riany et al. [23] assert that social support is a psychological tool that will inevitably improve parenting techniques. Parenting children with developmental disabilities has been linked in research to PS and social support. PSS is the individual’s subjective assessment of the social, psychological, and interpersonal support that sustains and enhances health and well-being [24]. Parents found their major social network’s support to be more satisfying than that of experts. The high PSS group’s level of parenting stress was lower than that of the low PSS group. A substantial variation in parental stress was significantly explained by the PSS-general, parenting style, and ADHD symptoms [25].

Cobb [26] suggested that family support is something an individual believes that the person is being cared for, loved esteemed, and has a sense of belonging. In recent years many researchers mentioned that social support is perceived differently by different individuals. That is PSS is whether the individual views the social support is sufficiently received or not. PSS was claimed to have an overall positive effect on health, emotional well-being, and psychological well-being. And very important for the life satisfaction and self-esteem of the individual.

1.2. Need and Significance of the Study

Parenting a child with attention problems and hyperactivity is challenging and stressful for a mother. Stress affects the psychological and health of the mother. Support from family members, friends, relatives, and society will act as a coping factor for the mother. When a mother feels she is receiving support from others, she may feel better, and her efficacy in parenting will be improved. Her psychological well-being will also be improved. As per the previous studies mentioned above, perceived social support will act as a mediating effect between PS and psychological well-being. However, the studies are conducted in Western culture. There is no study conducted related to this in Indian culture. Indian mothers are bound by culture and interdependent with society and family. The researcher conducted the study to understand whether stress affects psychological well-being and does PSS mediates PS and psychological well-being.

2. Methodology

2.1. Objectives

- To study the effect of parenting stress [PS] on the Psychological well-being of the Mothers of CWADHD.
- To study the mediating effect of PSS on the relationship between PS and the psychological well-being of the mothers of CWADHD.

Figure 1 shows the proposed mediation model. Parenting stress may have an effect on psychological well-being and perceived social support may mediate the reaction.

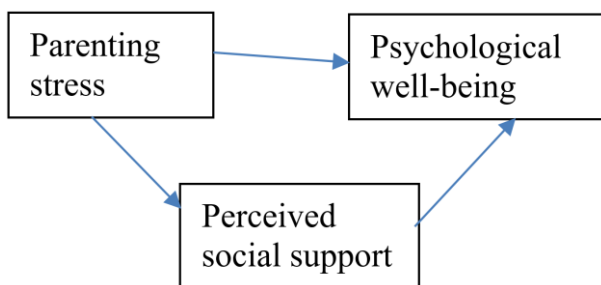


Figure 1. Proposed Model

- H₁. There will be a significant relationship between PS and psychological well-being among mothers of CWADHD.
- H₂. PSS mediates the relationship between PS and the psychological well-being of Mothers of CWADHD.

H_{2a}: PS has a significant impact on PSS

H_{2b}: PS has a significant impact on Psychological Wellbeing

H_{2c}: PSS has a significant effect on Psychological Wellbeing

H_{2d}: PSS mediates the relationship between PS and Psychological Well-being.

2.2. Participants and Procedure

The researcher sought permission to collect data from the mothers of children diagnosed with ADHD from special schools in Chennai. Confidentiality of data was assured, and they were given the freedom to withdraw from the research at any point. Mothers who have child with ADHD of age between six to twelve are considered for the study. Parents are given the standardized questionnaire and asked to fill it. Participants eagerly took part in the research. A purposive sampling method was used to collect the data. Parents who have not undergone any parenting training or intervention training are selected for the study.

2.2.1. Inclusion Criteria

- Mothers who are having a child diagnosed with ADHD children.
- Mothers who have signed the consent form to participation in this study.
- Mothers of children with ADHD age range between 22 to 46 years.

2.2.2. Exclusion Criteria

- Mothers who have a child with other disorders.
- Mothers who are not proficient in the English language.
- Mothers who have attended any intervention program earlier related to stress management.

2.3. Measures

To measure Parenting stress, the Parenting Stress Scale (PSS) was used, developed by Berry and Jones [27] to measure parenting stress. The scale has an 18-item self-report scale that explores emotional beliefs and stress feelings.

To measure the Perceived social support, the Multidimensional Scale of Perceived Social Support (MSPSS) was used, a 12-item scale developed to measure the perceived social support from three sources [28].

The Psychological General Well-Being Index (PGWBI) [29] was used to measure psychological well-being. This tool consists of 22 items, rated on a 6-point scale which assesses participants' psychological and general well-being.

3. Result Analysis

Table 1 shows the socio-demographic data of Mothers of ADHD children. They were around 41% of the mothers between the age group of 20 and 30 age range and 59% of mothers around the age group of 30-40 years range participated in this study. Of the total of 131 mothers, 7.63% mothers completed their high school, 9.16% mothers completed the higher secondary, most of the mothers (49.6% of mothers) have completed their under-graduation and around 33.58% of mothers have completed their post-graduation. Around 45% of the total mothers were middle level in their socio-economic status, 20% were upper level in socio-economic status and the remaining 35% were in the lower level. Most of the mothers (56.4%) had 2 children around 33.5% of mothers had 1 child and 9.9% of mothers had 3 children. The number of boys (74.8%) is higher compared to the girls (25.2%). And around 24.42% of children had learning disability comorbidity.

Table 1. Socio-demographic details of the mothers who participated (n=131)

	Category	Frequency
Age	20-30	41%
	30-40	59%
Education Level	High school Education	7.63%
	Secondary class Education	9.16%
	College Education	49.6%
	Post Graduate Education	33.58%
Socio-economic status	Lower	35%
	Middle	45%
	Upper	20%
Total Number of Children	1	33.5%
	2	56.4%
	3 and above	9.9%
Gender of the child	Boys	74.8%
	Girls	25.2%
Place of Birth	Rural	41.9%
	Urban	58%
Other Comorbidity	Nil	44.27%
	Learning disability	24.42%

The regression analysis is done before testing the mediation model testing to see the effects between the variables taken. The entire variable to study is involved in the regression analysis. The results of the 131 samples are shown in Table 2, which are

1. The effect of Parenting stress on Psychological well-being was significant and negatively affected ($\beta = -0.16$), $p,0.001$),
2. Perceived social support has a positive effect on psychological well-being ($\beta = 0.235$, $p,0.001$)

Table 2. Regression Analysis for parenting stress and psychological well-being predicting psychological well-being

	B	Std.Error of B	Std Beta	Coefficient t Value	P Value
con	2.72	0.40		6.67	.00
PS	-.14	0.08	-.16	-1.70	.09
PSS	.11	0.04	.23	2.45	.01

N=131 R square= .12 F value: 8.70 R-Value: 0.34 P value <.000**
con=constant, PS=Parenting stress

PSS=Perceived social support

Multiple regression was run to predict psychological well-being. These variables statistically significantly predicted PWB $F(2,12) = 8.70, R^2 = .12$.

The multiple regression coefficient is 0.34 measures the degree of relationship between the actual value and the

predicted value of Psychological well-being. Predicted values are obtained as a linear combination of PS and PSS; the coefficient value of 0.34 shows a positive relationship between Psychological well-being, parenting stress, and Perceived Social Support.

The value of R square is 0.12, which means 12% of the variation in Psychological well-being is described by the estimated SRP that uses parenting stress and Perceived Social Support as the independent variables.

The result shows that the beta value indicates the PS and PSS strength and the relationship with psychological well-being, the beta value of PS ($\beta = -0.16, P<0.001$), and PSS ($\beta = 0.23, P<0.001$). If PS increases in one unit, psychological well-being will decrease by -0.16. If PSS increases in one unit, that will improve psychological well-being by 0.23. PSS mediates the relationship between PS and the psychological well-being of mothers of children with ADHD, and PS significantly impacts PSS and Psychological well-being. Hence the H_2, H_{2a} , and H_{2b} is accepted.

Table 3 shows that Structural modelling was used to measure the mediation effect of PSS on psychological well-being. The results revealed $P<0.05$ level and its partial mediating role of PSS ($H_2: \beta = -0.14, t= 2.08, p=0.03$). Since the direct and indirect effect shows a significant impact negatively. There is a complementary partial mediation existing in this model.

Table 3. Direct relationship results

Paths	Original Sample β	Sample Mean (M)	(STDEV)	T	P Values
PS-> PSS-> PWB	-0.14	-0.14	0.06	2.08	0.03

PS= Parenting stress, PSS=Perceived social support, PWB=Psychological well-being

Table 4 result shows that PS has a significant impact on PSS and Psychological well-being. The mediating variable, PSS, significantly impacts psychological well-being. Results indicated that parenting stress is negatively associated with psychological well-being among mothers of children with ADHD. So, hypothesis 1 has been accepted. PSS mediates the association between PS and the psychological well-being of mothers of children with ADHD. Parental stress significantly impacts PSS and Psychological well-being. Hence H_{2c} is accepted. At the same time, PSS mediates the association between parental stress and Psychological Well-being. Hence H_{2d} is accepted.

Figure 2 shows the path value. All three paths have associated T-values: 3.20 for PS -> PSS, 2.53 for PS -> Psychological well-being, and 2.52 for PSS -> Psychological well-being. All three paths have associated p-values: The p-value for PS -> PSS is 0.00, the p-value for PS-> Psychological well-being is 0.01, and the p-value for Perceived Social Support -> Psychological well-being is 0.01.

Table 4. Specific Indirect Effect

Paths	Original Sample β	Sample Mean (M)	(STDEV)	T	P Values
Parenting Stress -> Perceived Social Support	-0.49	-0.48	0.15	3.20	0.00
Parenting Stress -> Psychological Wellbeing	-0.46	-0.45	0.18	2.53	0.01
Perceived Social Support -> Psychological Wellbeing	0.29	0.29	0.11	2.52	0.01

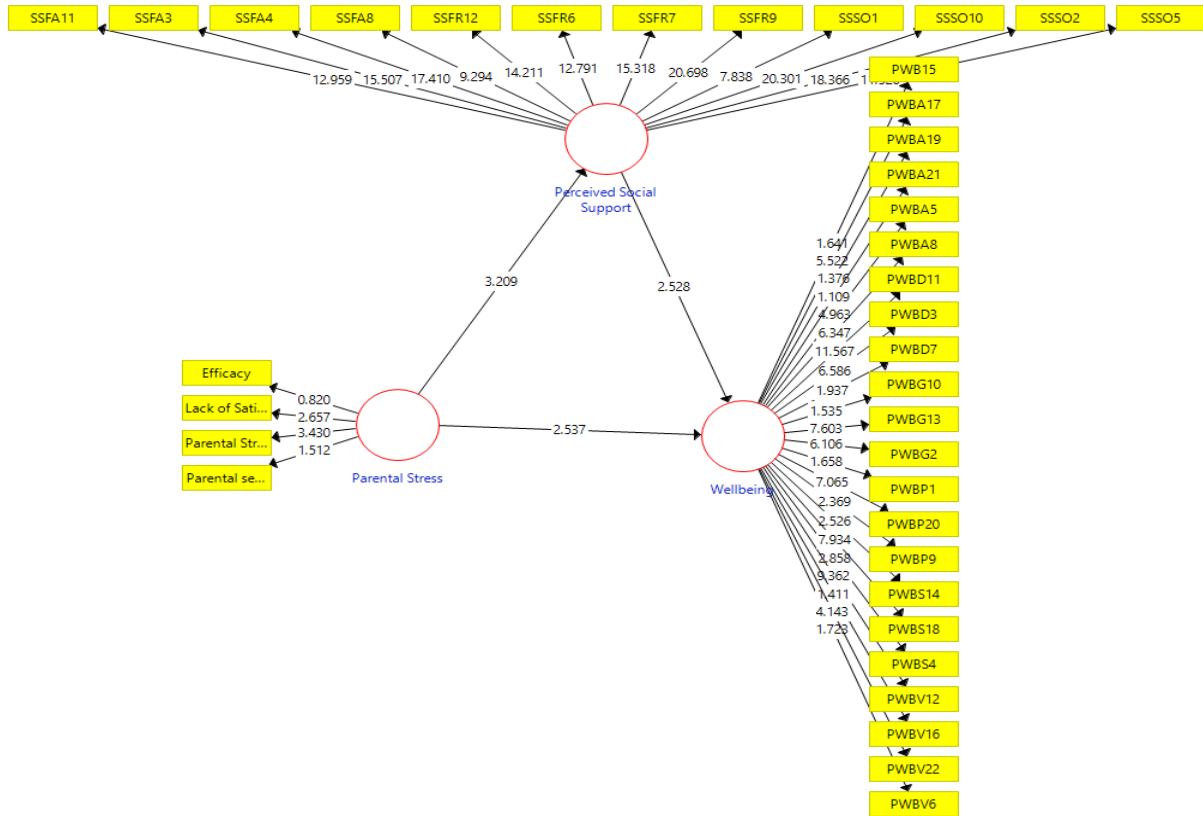


Figure 2. Structural Model

4. Discussion

Mother plays a crucial role in a child’s life. From the moment of conception, a mother and child have a relationship. A stress-free, healthy, and happy pregnancy helps in healthy childbirth. During the child’s growth, the mother plays an essential role in the child’s healthy development, character building, and personality. When the mother shows hostile parenting and harsh behavior that will affect the children, the child may develop positive or negative behavior based on the parenting and behavior of the mother. According to Abidin’s theory of parenting stress can be due to factors such as child and parent’s characteristics and situational or environmental factors [30]. As the previous studies suggest, a child with ADHD will be impulsive, fail to attend to instructions, and have socializing issues. Children with ADHD, due to their disorder, have difficulty in their academic skills, social

relationships, and interaction with family members. They miss instruction and seem disobedient due to their impulsive nature, and mothers may struggle to coordinate with them [31]. Also, there are high chances of having co-morbidity such as conduct disorder and learning disability for ADHD child [32]; due to all these factors, there is very much possibility for the mothers of children with ADHD to have parenting stress.

The result of this study suggests that when there is an increase in parenting stress, it affects the well-being of the mother of the child with developmental disorder. Psychological well-being is about feeling better and able to function effectively—having positive mental health and coping with life stresses and negative emotions [33]. As per the result obtained in this study, mothers have high parenting stress, affecting their psychological well-being.

Also, PSS partially mediates parenting stress and psychological well-being. It shows that when PSS is higher,

it may reduce parents' stress and increase mothers' well-being. When support is given adequately, it reduces the person's negative emotions [34]. While studying the causes behind the parents' stress, social support plays a vital role in acting as a "buffer." It has a close relationship to the health and life events of mothers of children with ADHD, and it regulates PS and psychological well-being through PSS [35].

Based on the social connectedness theory, "keeping a close relationship with society" can reduce stress [36]. This result is supported by a study [37] that perceived social support significantly increases psychological well-being. Social support can be from family members, close friends who can support the mother without any judgments, and by a particular person the mother values the most. Such support will build confidence for the mother, and she will not feel alone and isolated.

Physical and psychological well-being are needed for a person to lead a healthy and happy life. Stress affects psychological well-being. When stress is aroused, it affects not only the psychological well-being but also the physical health of a person. Parenting stress affects the parenting of the child. Positive and healthy parenting is needed for a healthy upbringing of the child. Negative Parenting affects the emotions and behavior of the child. Social support is a vital factor for every person. When a person receives support from their spouse, family, friends, and peers, that will increase their confidence, give a positive attitude, and increase their efficacy level. A child with ADHD needs more care, attention, and positive parenting than one without ADHD.

4.1. Limitations of the Study

A longitudinal or experimental study can be conducted to extend the findings obtained.

This study does not have control over other variables such as the mother's health, education, resilience, and income status that affect the psychological well-being of the mothers of CWADHD, which may influence the result.

5. Conclusions

In conclusion, the present study used a mediation approach to explore the effect of PS on psychological well-being and the mediating effect of PSS. Based on the regression analysis through smart PLS, it is evident through the research that perceived social support had a partial mediation effect on the relationship between PS and the well-being of the mothers. Partial mediation indicates that there is an effect of PS on psychological well-being in both situations wherein PSS is present or not present.

More patience, understanding, and a healthy mind are needed to care for a child with special needs. Parenting stress may affect this healthy mind, and it affects the psychological well-being of the mother. When

psychological well-being is affected, it affects the parent-child interaction and, in turn, affects the healthy behavior of the child. So, through proper parent training, family counseling, problem-solving training, cognitive behaviour therapy [38], and social skills training, one can decrease parenting stress and increase the perceived social support and psychological well-being.

REFERENCES

- [1] R. Thomas, S. Sanders, J. Doust, E. Beller, and P. Glasziou, "Prevalence of attention-deficit/hyperactivity disorder: A systematic review and meta-analysis," *Pediatrics*, vol. 135, no. 4, pp. e994–e1001, 2015. <https://doi.org/10.1542/peds.2014-3482>
- [2] J. Venkata and A. Panicker, "Prevalence of attention deficit hyperactivity disorder in primary school children," *Indian J. Psychiatry*, vol. 55, no. 4, p. 338, 2013. <https://doi.org/10.4103/0019-5545.120544>
- [3] R. R. Abidin, *Parenting Stress Index-Manual*. Charlottesville, VA: Pediatric Psychologists Press, 1986.
- [4] J. Belsky, M. Rovine, and D. G. Taylor, "The Pennsylvania infant and family development project, III: The origins of individual differences in infant-mother attachment: Maternal and infant contributions," *Child Dev.*, vol. 55, no. 3, p. 718, 1984. DOI: <https://doi.org/10.2307/1130124>
- [5] T. M. Phiri, P. Nyamaruze, and O. Akintola, "Stress and coping among unmarried pregnant university students in South Africa," *BMC Pregnancy Childbirth*, vol. 21, no. 1, 2021. <https://doi.org/10.1186/s12884-021-04288-1>
- [6] M. O. Ogundele, "Behavioural and emotional disorders in childhood: A brief overview for paediatricians," *World J. Clin. Pediatr.*, vol. 7, no. 1, pp. 9–26, 2018. <https://doi.org/10.5409/wjcp.v7.i1.9>
- [7] R. R. Abidin, "Parenting stress index third edition: Professional manual," *Psychological Assessment Resources*, 1995.
- [8] K. Deater-Deckard and S. A. Petrill, "Parent-child dyadic mutuality and child behavior problems: an investigation of gene-environment processes," *J. Child Psychol. Psychiatry*, vol. 45, no. 6, pp. 1171–1179, 2004. <https://doi.org/10.1111/j.1469-7610.2004.00309.x>
- [9] S. Yousefia, A. S. Far, and E. Abdollahian, "Parenting stress and parenting styles in mothers of ADHD with mothers of normal children," *Procedia Soc. Behav. Sci.*, vol. 30, pp. 1666–1671, 2011.
- [10] M. M. Flynn, P. J. Rosen, J. S. Reese, K. E. Slaughter, H. F. Alacha, and A. R. Olczyk, "Examining the influence of irritability and ADHD on domains of parenting stress," *Eur. Child Adolesc. Psychiatry*, vol. 32, no. 2, pp. 353–366, 2023.
- [11] T. Korpa et al., "Mothers' parenting stress is associated with salivary cortisol profiles in children with attention deficit hyperactivity disorder," *Stress*, vol. 20, no. 2, pp. 149–158, 2017.

- [12] E. J. Mash and C. Johnston, "Parental perceptions of child behavior problems, parenting self-esteem, and mothers' reported stress in younger and older hyperactive and normal children," *J. Consult. Clin. Psychol.*, vol. 51, no. 1, pp. 86–99, 1983. <https://doi.org/10.1037//0022-006x.51.1.86>
- [13] R. R. Abidin, "The determinants of parenting behavior," *J. Clin. Child Psychol.*, vol. 21, no. 4, pp. 407–412, 1992.
- [14] N. Lin, "Conceptualizing Social Support," in *Social Support, Life Events, and Depression*, Elsevier, 1986, pp. 17–30.
- [15] S. Zeng, X. Hu, H. Zhao, and A. K. Stone-MacDonald, "Examining the relationships of parental stress, family support and family quality of life: A structural equation modeling approach," *Res. Dev. Disabil.*, vol. 96, no. 103523, p. 103523, 2020. <https://doi.org/10.1016/j.ridd.2019.103523>
- [16] N. H. Falk, K. Norris, and M. G. Quinn, "The factors predicting stress, anxiety and depression in the parents of children with autism," *J. Autism Dev. Disord.*, vol. 44, no. 12, pp. 3185–3203, 2014. <https://doi.org/10.1007/s10803-014-2189-4>
- [17] A. Balcells-Balcells, C. Giné J. Guàrdia-Olmos, J. A. Summers, and J. M. Mas, "Impact of supports and partnership on family quality of life," *Res. Dev. Disabil.*, vol. 85, pp. 50–60, 2019. <https://doi.org/10.1016/j.ridd.2018.10.006>
- [18] M. D. Robinson, E. C. Solberg, P. T. Vargas, and M. Tamir, "Trait as default: Extraversion, subjective well-being, and the distinction between neutral and positive events," *J. Pers. Soc. Psychol.*, vol. 85, no. 3, pp. 517–527, 2003. <https://doi.org/10.1037/0022-3514.85.3.517>
- [19] F. Gülaçtı, "The effect of perceived social support on subjective well-being," *Procedia Soc.*, *Procedia Soc. Behav. Sci.*, vol. 2, no. 2, pp. 3844–3849, 2010.
- [20] Z. A. Şahin, M. Tan, and H. Polat, "Hopelessness, depression and social support with end of life Turkish cancer patients," *Asian Pac. J. Cancer Prev.*, vol. 14, no. 5, pp. 2823–2828, 2013.
- [21] E. Cappe et al., "Preliminary results of the effects of a psychoeducational program on stress and quality of life among french parents of an autistic child," *Focus Autism Other Dev. Disabl.*, p. 108835762098694, 2021. <https://doi.org/10.1177/1088357620986946>
- [22] Y. E. Riany and A. Ihsana, "Parenting stress, social support, self-compassion, and parenting practices among mothers of children with ASD and ADHD," *Psikohumaniora J. Penelit. Psikol.*, vol. 6, no. 1, pp. 47–60, 2021.
- [23] Y. E. Riany, M. Cuskelly, and P. Meredith, "Parenting style and parent-child relationship: A comparative study of Indonesian parents of children with and without autism spectrum disorder (ASD)," *J. Child Fam. Stud.*, vol. 26, no. 12, pp. 3559–3571, 2017.
- [24] A. Tariq, T. Beihai, N. Abbas, S. Ali, W. Yao, and M. Imran, "Role of perceived social support on the association between physical disability and symptoms of depression in senior citizens of Pakistan," *Int. J. Environ. Res. Public Health*, vol. 17, no. 5, p. 1485, 2020. <http://dx.doi.org/10.3901/ijerph17051485>
- [25] L. C. Joyce, Y. C. Kelly, and W. K. Lai Julia, "Impact of age and symptom severity on parent-child relationships and self-perception among Chinese children with Attention Deficit Hyperactivity Disorder," *Social Work in Mental Health*, vol. 15, no. 5, pp. 538–554, 2017.
- [26] S. Cobb, "Social support as a moderator of life stress," *Psychosom. Med.*, vol. 38, no. 5, pp. 300–314, 1976. <https://doi.org/10.1097/00006842-197609000-00003>
- [27] J. O. Berry and W. H. Jones, "The Parental Stress Scale: Initial psychometric evidence," *J. Soc. Pers. Relat.*, vol. 12, no. 3, pp. 463–472, 1995.
- [28] J. Canty-Mitchell and G. D. Zimet, "Psychometric properties of the multidimensional scale of perceived social support in urban adolescents," *Am. J. Community Psychol.*, vol. 28, no. 3, pp. 391–400, 2000. <https://doi.org/10.1023/A:1005109522457>
- [29] E. Grossi et al., "Development and validation of the short version of the Psychological General Well-Being Index (PGWB-S)," *Health Qual. Life Outcomes*, vol. 4, no. 1, 2006. <https://doi.org/10.1186/1477-7525-4-88>
- [30] R. A. Barkley, *Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment*. The Guilford Press, 2006.
- [31] R. R. Abidin, *Parenting Stress Index, 3rd Edition: Test Manual*. Charlottesville, VA: Pediatric Psychology Press, 1990.
- [32] R. A. Barkley, "Theories of attention-deficit/hyperactivity disorder," in *Handbook of Disruptive Behavior Disorders*, Boston, MA: Springer US, 1999, pp. 295–313.
- [33] R. A. Barkley, M. Fischer, L. Smallish, and K. Fletcher, "Young adult outcome of hyperactive children: adaptive functioning in major life activities," *J. Am. Acad. Child Adolesc. Psychiatry*, vol. 45, no. 2, pp. 192–202, 2006.
- [34] X. Lan and W. Wang, "To be Shy or avoidant? Exploring the longitudinal association between attachment and depressive symptoms among left-behind adolescents in rural China," *Pers.*, *Pers. Individ. Dif.*, vol. 155, no. 109634, 2020.
- [35] A. L. Quittner, R. L. Glueckauf, and D. N. Jackson, "Chronic parenting stress: Moderating versus mediating effects of social support," *J. Pers. Soc. Psychol.*, vol. 59, no. 6, pp. 1266–1278, 1990. <https://doi.org/10.1037/0022-3514.59.6.1266>
- [36] R. M. Lee, M. Draper, and S. Lee, "Social connectedness, dysfunctional interpersonal behaviors, and psychological distress: Testing a mediator model," *J. Couns. Psychol.*, vol. 48, no. 3, pp. 310–318, 2001. <https://doi.org/10.1037/0022-0167.48.3.310>
- [37] C. L. Gohm, G. C. Corser, and D. J. Dalsky, "Emotional intelligence under stress: Useful, unnecessary, or irrelevant?," *Pers. Individ. Dif.*, vol. 39, no. 6, pp. 1017–1028, 2005. <https://doi.org/10.1016/j.paid.2005.03.018>
- [38] N. A. Bakar, M. S. Alsmadi, and I. M. Sulaiman, "Effect of cognitive behavioral therapy for psychosis (CBTP) on mothers of youngsters with cerebral palsy," *Univers. J. Public Health*, vol. 9, no. 3, pp. 113–119, 2021. DOI: 10.13189/ujph.2021.090302.