

Social Support: A Facilitator of Optimism among the Caregivers of Children Diagnosed with Autism Spectrum Disorders (ASD)

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DOI: <https://doi.org/10.36348/sjhss.2025.v10i07.008>

| Received: 13.05.2025 | Accepted: 18.06.2025 | Published: 17.07.2025

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Abstract

Introduction: Raising and providing adequate facilities to the specially-abled children along with autism spectrum disorder is a very stressful and overwhelming task for their parents and caregivers. Most of the caregivers and parents of such children reported distress and hardships in caregiving because these children showed numerous difficulties. The difficulties and issues faced by the caregivers and parents in rearing children with autism is the principal focus of the present study. The current research study also highlighted the social support enhanced mental well-being of the caregivers. Children with autism experience innumerable problems related to their activities and behaviors. So, because of these problems, their caregivers face a lot of challenges in their normal day-to-day living and caregiving. Therefore, in these situations, social support is very crucial for them and it also enhances optimism in them to overcome their stress and also handle various issues related to caregiving efficiently and confidently. **Objectives:** The present research study intends to understand the role of perceived social support in facilitating optimism among the caregivers of children with autism, and also explore the relationship between perceived social support and optimism that may enhance the overall health and well-being of the caregivers of an autistic child. **Method:** Samples of sixty caregivers of children with autism spectrum disorder were taken for this study, using purposive sampling techniques. Life Orientation Test-Revised (LOT-R) for measuring optimism and Multidimensional Scale of Perceived Social Support (MPSS) was administered to measure perceived social support were employed. Pearson Product Moment Correlation Coefficient and Regression Analysis were used to analyze the results. **Results:** Positive and significant relationship was found between overall perceived social support and optimism, and perceived social support also facilitated optimism among the caregivers of children diagnosed with an autism spectrum disorder.

Keywords: Perceived social support, Optimism, Pessimism, Autism spectrum disorder, and Caregivers.

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INTRODUCTION

We all know that the caregivers of children with autism and other dysfunction face various challenges and difficulties in raising their children throughout their life, may be because of so many reasons such as because of numerous serious symptoms and unusual behavior of their children, acceptance, unawareness of various things related to their child's problem, the important reason is, they want quick cure (and because of this they become upset and tensed for a long period of time), lack of adequate social support and social stigma also becomes one of the reason. The most common issues faced by caregivers are stress, hypertension, anxiety, dizziness, nausea, and headache and so on. These problems hamper the normal functioning of the caregivers and parents of such children. But we also found that the caregivers and parents of children with autism who had good and

healthy social networks and positive personality traits such as internal locus of control, optimism, and hope, overcome their problem easily and experience fewer difficulties in rearing their child. Good and strong social support including support from family, friends, social groups, organizations, and communities promote enthusiasm among the caregivers of children with autism.

Various studies have found that caregivers having optimistic traits reported, good standard of living, provide a favorable and comfortable environment for their children, adopt active and adaptive coping strategies and solve their daily living problems efficiently. "Social support may also help individual's focus on the positive aspects and potential benefits of a difficult situation (Pearlin & Schooler, 1978), and is therefore connected to optimism". Healthy social

networks expedite optimism that ultimately leads to a caregiver's better physical and mental well-being. Optimism also reduces stress and depressive symptoms of caregivers and strengthens their confidence and willpower. Social support is very crucial for the good and healthy psychological and physiological health of the caregivers and parents of special children. Strong and effective social support lessens the adverse psychological effect of nurturing a special child including children with autism spectrum disorder (Bishop, Richer, Cain & Lord, 2007). It enhances positive attributes and personality characteristics that influence the overall health and well-being of caregivers as well as the development of special children.

Therefore, the current research study centralizes the role of perceived social support in enhancing and facilitating optimism and other positive personality characteristics in the caregivers of children with ASD, that they accept and understand their child well, and provide adequate facility and care to their children effectively that ultimately leads to the overall well-being of both the caregivers and the children.

Autism Spectrum Disorder (ASD)

"Autism spectrum disorder is a pervasive neurodevelopmental disorder characterized by impairment in social communication and restricted, repetitive patterns of behavior, interests or activities" (American Psychiatric Association (APA), 2013). Fulfilling a high care demand of the children with autism spectrum disorder puts their caregivers and parents in stressful situations. Autism spectrum disorder is a complicated developmental disorder that worsens the person's social and personal skills and it emerged from early childhood. Children with autism have various behavioral and motor difficulties, they have poor eye contact, concentration or alertness difficulty, delayed language development, poor verbal fluency, and impaired executive functioning and rigidity. The lifelong behavioral problems of children may affect the caregiver's physical and mental health and lifestyle. The living style of parents and caregivers of child with autism was lower than the healthy children (Mugno *et al.*, 2007).

Evidence shows that caregivers of children with autism have restrained freedom to do any activities even at home due to the multiple responsibilities of their special child which requires more time than the caregivers of normal children (Smith, Hong, Seltzer, Greenberg, Almeida & Bishop, 2010). But some studies found that the well-being of parents could positively affect the caregiving and thus reduce the caregiving burden (Giallo, Wood, Jellett & Porter, 2013).

Therefore, we can say that having positive personality traits and adequate social support (any type of support) also reduces the caregiving burden and enhances optimism and well-being. Despite all the

difficulties faced by the caregivers in the caregiving of children with autism, they show persistent resilience and can live a better life (Bekhet, Johnson & Zauszneiwski, 2012; Bayat, 2007; Tiba, Johnson & Vadineanu, 2012; Yatchmenoff, Koren, Friesen, Gordon & Kinney, 1998).

Perceived Social Support and the Caregivers of Children with Autism Spectrum Disorders

Perceived social support is the perception of support that one received from others including family, community, and social groups in various forms. It is the assistance provided by the other people. A person who has a healthy social network tends to be physically and mentally healthier rather than those who have not. Perceived social support play an essential role in the life of caregivers who had differently-abled children including children with autism spectrum disorder, and it is one of the important predictors of the physiological and mental health of the caregivers. Caregivers having fewer social networks face difficulties in rearing their child than caregivers having strong and healthy social networks rear their child with less difficulty. Plenty of studies found that perceived social support alleviate the stress of the caregivers (Luther *et al.*, 2005), and have a positive effect on the caregivers of individual with other conditions such as Parkinson's disease, and Alzheimer (Mausbach *et al.*, 2012).

Social media and social networking sites provide opportunities for caregivers to connect and also receive information related to healthcare and support through support groups that are beneficial for both caregivers and their children (Hamm *et al.*, 2013). Thus, social support is associated with reducing distress and discomfort of the caregivers of autistic children. Polita and Tacla, (2014); Whittingham, Wee, Sanders and Boyd, (2013) reported social support inhibits stressful situations, and its absence results in negative effects which can lead to feelings of aggression, sadness, and various other problems in the families of special children. Thus, social support plays an important role in mitigating the challenges related to having a chronic stressor, including an autistic child, in the home, and enhancing to adapt successfully.

Optimism and the Caregivers of Children with Autism Spectrum Disorders

Optimism is an attitude and personality constituent of a person that they can see and positively interpret things, and an expectation that good and pleasurable events happen in the future. Optimistic people think or believe that negative and dreadful advent or phenomenon occurs rarely and it happens because of external factors not by their fault; and also see only the positive side of the things rather than the negative.

Pessimism is the negative attitude and thought in which people interpret or see things negatively and also believes that negative and dreadful things continue

to happen throughout their life. Past researches reported personality traits such as hardiness, extraversion, optimism and locus of control were correlated with the maternal health of the children with autism (Dunn *et al.*, 2001; Gill & Harris, 1991; Weiss, 2002). Optimism is specifically crucial in enhancing the maternal psychological functioning of the mothers of autistic children. Several studies found that optimism and social aid are significantly and positively related (Daugall *et al.*, 2001; Park & Folkman, 1997).

Societal aid mediates the association between mental adjustment and optimism; it produces enthusiasm among the people (Daugall *et al.*, 2001). Quality of life was found to be lower, higher depression, and pessimism was found to be greater in the caregivers of children with autism spectrum disorder than the caregivers of normal children (Cappe *et al.*, 2011; Johnson *et al.*, 2011). Studies also show that the mothers of children with developmental deficits, who have a positive and optimistic view, can overcome the adverse situation efficiently (Baker, Blacher & Olsson, 2005).

Purpose of the study

Caregivers of especially abled children including children with autism face various challenges in taking care of a child's daily basic needs including personal hygiene, education, diagnosis, medication and treatment (Whitman, 2004). Because of such responsibilities and difficulties related to nurturing, caregivers claimed low well-being levels (Ekas *et al.*, 2009), high levels of distress (Benson, 2006), and depression (Olsson & Hwang, 2001). Social support and optimism are very crucial aspects that decrease the negative psychological impact of nurturing an especially abled child (Bishop *et al.*, 2007; Bromley *et al.*, 2004; Hassal *et al.*, 2005), and it helps the parents and caretaker to raise their child with less difficulty. Therefore, the current study accentuates the role of perceived social support and positive personality traits in reducing the caregiver's burden of caregiving; it decreases various difficulties and diseases and enhances optimism and overall well-being of the caregivers and parents.

Objectives of the study

- 1) To examine the mean difference in perceived social support and its dimensions (Significant Others, Friends and Family) with respect to Gender among the caregivers of children with autism.
- 2) To examine the mean difference in optimism and its dimensions (Optimism and pessimism) with respect to Gender among the caregivers of children with autism.
- 3) To examine the relationship between perceived social support and its dimensions (Significant Others, Friends and Family) with optimism and Pessimism among the caregivers of children with autism.

- 4) To identify the predictors of optimism and pessimism in perceived social support and its dimensions (Significant Others, Friends and Family) among the caregivers of children with autism.

Hypotheses of the study

- 1) Significant other dimension of perceived social support will be significantly and positively associated with optimism, and also significantly and positively predicted in facilitating optimism among the caregivers of children with autism spectrum disorder.
- 2) Friend's dimension of perceived social support will be significantly and positively associated with optimism, and also significantly and positively predicted in facilitating optimism among the caregivers of children with autism spectrum disorder.
- 3) There will be significant and positive association between family dimension of perceived social support and optimism, and also significantly predicted in facilitating optimism among the caregivers of children with autism spectrum disorder.
- 4) The overall perceived social support will be significantly and positively associated with optimism, and also significantly and positively contributed in facilitating the optimism among the caregivers of children with autism spectrum disorder.
- 5) Significant other dimension of perceived social support will be significantly and positively correlated with pessimism, and also significantly and positively predicted in reducing pessimism among the caregivers of children with autism spectrum disorder.
- 6) Friend's dimension of perceived social support will be significantly and positively correlated with pessimism, and also significantly and positively predicted in reducing pessimism among the caregivers of children with autism spectrum disorder.
- 7) There will be significant and positive association between family dimension of perceived social support and pessimism, and also significantly contributed in reducing pessimism among the caregivers of children with autism spectrum disorder.
- 8) There will be significant and positive relationship between overall perceived social support and pessimism, and also significantly and positively contributed in reducing the pessimism among the caregivers of children with autism spectrum disorder.
- 9) There will be significant and positive relationship between overall perceived social support and total LOT (optimism) among the caregivers of children with autism spectrum disorder.

METHOD OF THE STUDY

The method employed for the present study are briefly discussed as follows

Participants

A total of sixty caregivers of children with autism (ASD) take part in the present research study. The sample was taken by using the purposive sampling technique from Missionaries of Charity, Dhanbad, Jharkhand; and Pehla Kadam School, Dhanbad, Jharkhand.

Instruments Used

- **Multidimensional Scale of Perceived Social Support:** It was introduced by Zimet, Dahlem, Zimet & Farley in (1988). It consisted of 12 items and 3 dimensions. Responses are given on a 7 point rating scale ranging from “Very Strongly Disagree” to “Very Strongly Agree”.
- **Life Orientation Test-Revised (LOT- R):** It was introduced by Scheier, Carver & Bridges in (1994). It comprised of 10 items; 3 items measure optimism, 3 items measure pessimism, and 4 items serve as fillers. Responses are given on a 5 point rating scale ranging from “I agree a lot” to “I disagree a lot”. This scale is a revised version of the original 12 items LOT which was developed by Scheier &

Carver in (1992). The original 12 items LOT had 4 positively worded items, 4 negatively worded items, and 4 fillers.

Procedure of the study

After explaining the intention of the study, consent was taken from the caregivers of children with autism to take part in the research study. They were instructed to complete the questionnaire and assured them about the confidentiality of their response. It was also told to them that data obtained will be only used for research purposes. The participants completed the demographic details and questionnaire and Data was analyzed by using SPSS (22).

Statistical Analysis

Data were evaluated by applying both descriptive and inferential statistics. Mean and standard deviation of both predictor and criterion variable was calculated. Pearson Product Moment Coefficient of Correlation was applied to analyze the association between perceived social support and optimism among the caregivers of children with autism spectrum disorder, and Regression Analysis was also used.

RESULTS AND DISCUSSION

Table 1: Mean and Standard Deviation of both Criterion and Predictor Variables

Variables	Mean	Standard Deviation	N
Optimism	13.08	.889	60
Pessimism	10.55	1.268	60
Total LOT	23.63	1.573	60
Significant Others	6.1917	.44237	60
Friends	6.2583	.46933	60
Family	6.5167	.33467	60
Total PSS	6.3275	.24250	60

Table 1, Showing the mean and standard deviation of both criterion and predictor variables and also the mean and standard deviation of the dimensions of both variables. The mean of Optimism dimension of LOT is M= 13.08 and S.D= .889, the mean of Pessimism dimension of LOT is M= 10.55 and S.D= 1.268, the mean of total LOT is M= 23.63 and S.D= 1.573, the

mean of Significant other dimension of perceived social support is M= 6.1917 and S.D= .44237, the mean of Friends dimension of perceived social support is M= 6.2583 and S.D= .46933, the mean of the Family dimension of perceived social support is M= 6.5167 and S.D= .33467, and the mean of total Perceived social support (PSS) is M= 6.3275 and S.D= .24250.

Table 2: Bivariate correlation of Perceived social support and Life orientation test (dimension wise and overall) among the caregivers of children with autism spectrum disorder

	Ptimism	Pessimism	Significant Others	Friends	Family	Total_LOT	Total_PSS
Optimism Pearson Correlation	1.00	.034	.163	.080	-.005	.592**	.124
Sig. (2-tailed)		.797 ^{ns}	.212 ^{ns}	.546 ^{ns}	.971 ^{ns}	.000	.343 ^{ns}
N	60	60	60	60	60	60	60
Pessimism Pearson Correlation	.034	1.00	.156	.156	-.192	.825**	.107
Sig. (2-tailed)	.797 ^{ns}		.233 ^{ns}	.234 ^{ns}	.142 ^{ns}	.000	.415 ^{ns}
N	60	60	60	60	60	60	60
Significant Others Pearson Correlation	.163	.156	1.00	.053	.093	.218	.684**
Sig. (2-tailed)	.212 ^{ns}	.233 ^{ns}		.685 ^{ns}	.482 ^{ns}	.094 ^{ns}	.000

N	60	60	60	60	60	60	60
Friends Pearson Correlation	.080	.156	.053	1.00	-.230	.171	.595**
Sig. (2-tailed)	.546 ^{ns}	.234 ^{ns}	.685 ^{ns}		.077 ^{ns}	.192 ^{ns}	.000
N	60	60	60	60	60	60	60
Family Pearson Correlation	-.005	-.192	.093	-.230	1.00	-.157	.361**
Sig. (2-tailed)	.971 ^{ns}	.142 ^{ns}	.482 ^{ns}	.077 ^{ns}		.230 ^{ns}	.002
N	60	60	60	60	60	60	60
Total_LOT Pearson Correlation	.592**	.825**	.218	.171	-.157	1.00	.157
Sig. (2-tailed)	.000	.000	.094 ^{ns}	.192 ^{ns}	.230 ^{ns}		.232 ^{ns}
N	6	60	60	60	60	60	60
Total_PSS Pearson Correlation	.124	.107	.684**	.595**	.361**	.157	1.00
Sig. (2-tailed)	.343 ^{ns}	.415 ^{ns}	.000	.000	.005	.232 ^{ns}	
N	60	60	60	60	60	60	60

** . Correlation is significant at the 0.01 level (2-tailed), * . Correlation is significant at the 0.05 level (2-tailed), ns= insignificant.

The above mentioned table 2, showing the correlation between the predictor variables and criterion variables and their dimensions. An insignificant and positive association was found between optimism and pessimism dimension of LOT and overall LOT with overall perceived social support. Insignificant and positive association was also found between optimism and pessimism dimension of LOT and overall LOT with the significant other dimension of perceived social support. Insignificant and positive association was also found between optimism and pessimism dimension of LOT and overall LOT with the friend dimension of perceived social support and insignificant and negative association was also found between optimism and pessimism dimension of LOT and overall LOT with the family dimension of perceived social support among the caregivers of children with autism spectrum disorders. Only significant relationship was found between perceived social support with their dimensions and LOT with their dimensions among the caregivers of children with ASD. As shown in the table, a significant and positive relationship was found between significant other dimension of perceived social support and optimism among the caregivers of the children with autism spectrum disorder ($r = .163$; $p > 0.05$), which shows social support received from significant other increases, optimism also increases. This result is accordant with the results that revealed social support is vital for the mental and physical health of the caregivers of especially abled children. Support received from significant other promotes enthusiasm among the caregivers of special children (Bishop, Richler, Cain, & Lord, 2007). These results support H1.

Results also revealed that significant and positive association was found between friend's dimension of perceived social support and optimism among the caregivers of children with autism spectrum disorder ($r = .080$; $p > 0.05$), which also shows greater support from friends facilitate optimism. This finding is congruous with the finding which shows support received from friends is very beneficial for the health of the mother as well as for the better growth of special

children (Ersoy, & Curuk, 2009). Therefore, support received from friend's aids in positive personality development and healthy mental health and well-being among the caregivers of differently abled child. These results support H2.

Insignificant and negative association was found between family dimension of perceived social support and optimism among the caregivers of children with autism spectrum disorder ($r = -.005$; $p > 0.05$), which shows support from family decreases, optimism also decreases. This result is persistent with the results that revealed caregivers, especially caregivers of children with autism experience stigma from the people as well as from the family and closed ones that are associated with lower level of confidence, resilience, self-efficacy, and optimism among them (Broady et.al, 2017). These results not support H3.

Significant and positive association was established between overall perceived social support and optimism among the caregivers of children with autism spectrum disorder ($r = .124$; $p > 0.05$), overall social support increases, optimism also increases. Social support appears to be one of the key factors that decrease the negative psychological impact of rearing a differently abled child and a child with autism (Ozkubat, Ozdemir, Selimoglu, & Toret, 2014). This findings support the present result. These results also support H4.

Results also revealed that significant and positive association was found between significant other dimension of perceived social support and pessimism among the caregivers of children with autism spectrum disorder ($r = .156$; $p > 0.05$). It means that support received from significant others helps in reducing pessimistic personality traits that leads to negativism, it also reduces stress and anxiety of the caregivers of children diagnosed with an autism. These results support H5.

Significant and positive association was found between friend's dimension of perceived social support and pessimism among the caregivers of children with

autism spectrum disorder ($r = .156$; $p > 0.05$). It means that support received from friends helps in reducing pessimistic personality traits that leads to negativism and various mental health issues, it also reduces stress and anxiety of the caregivers of an autistic child. Support received from friends helps in enhancing well-being and optimism. These results support H6.

Insignificant and negative correlation was found between family dimension of perceived social support and pessimism among the caregivers of children with autism spectrum disorder ($r = -.192$; $p > 0.05$). A study revealed caregivers of children with autism encounter low levels of social assistance, specifically from family leads to depression, and pessimistic personality traits (Singh, Ghosh, & Nandi, 2017). Family has very little and insignificant contribution in reducing pessimism and other negative mental set towards disability among the caregivers in the present research study. These results not support H7.

Present findings also revealed that the significant and positive association was found between overall perceived social support and pessimism among the caregivers of children diagnosed with an autism ($r = .107$; $p > 0.05$). Overall perceived social support

enhances optimism and reduces pessimism. These results support H8.

Overall perceived social support and total LOT including optimism and pessimism was considered to be significantly and positively associated in the present findings ($r = .157$; $p > 0.05$). It contributed in facilitating optimism and reducing pessimism among the caregivers. These results support H9.

Positive and significant association was also found between optimism and pessimism among the caregivers ($r = .034$; $p > 0.05$).

Therefore, social support acts as a defensive shield for the caregivers of children with disabilities (Beresford, 2007). Support received from friends, significant others, community, social group, and family reduces stress, negative personality constituents, pessimism, apprehension, and dejection among the caregivers and mothers of children with autism (Glidden, Billings & Jobe, 2006). It increases well-being and decreases health related problems (Honey, Hastings & McConachie, 2005). But in the present research study, support from family contributed very less in facilitating optimism among the caregivers of children with autism.

Table 3: Results of regression analysis considering the Significant Others dimension of perceived social support as a facilitator of Optimism dimension of life orientation test (LOT) among the caregivers of children identified with an autism spectrum disorders

Predictor variable	Standard β coefficient	R	R ²	R ² change	F	p
Significant others dimension of perceived social support	.163 ^a	.163 ^a	.027	.027	1.593	.212 ^b

$p > 0.05$

Dependent variable= Optimism

Independent variable/ Predictor (constant) = Significant others dimension of perceived social support

It is visible from table 3, that the Significant other dimension of perceived social support emerged as the facilitator of optimism among the caregivers of the children with autism spectrum disorder. The square of correlation showed that .027% of the variance in optimism was explained by significant other dimensions of perceived social support. The β value of the significant others dimension of perceived social support ($\beta = .163$)

suggested that it has a significant association between the significant other dimension of perceived social support and optimism among the caregivers of children with autism. By considering the p-value it can be concluded that significant others' dimension of perceived social support contributed significantly in facilitating optimism at a .05 level of significance. Hence, hypothesis 1 is supported.

Table 4: Showing the results of regression analysis considering the Friends dimension of perceived social support as a facilitator of Optimism dimension of life orientation test (LOT) among the caregivers of children diagnosed with an autism spectrum disorder

Predictor variable	Standard β coefficient	R	R ²	R ² change	F	p
Friends dimension of perceived social support	.080 ^a	.080 ^a	.006	.006	.370	.546 ^b

$p > 0.05$

Dependent variable= Optimism

Independent variable/ Predictor (constant) = Friends dimension of perceived social support

From table 4, it can be seen that Friends' dimension of perceived social support emerged as the facilitator of optimism among the caregivers of the children with autism spectrum disorder. The square of

correlation showed that .006% of the variance in optimism was explained by a friend's dimension of perceived social support. The β value of friends' dimension of perceived social support ($\beta = .080$)

suggested that it has a significant association between the friend's dimension of perceived social support and optimism among the caregivers of an autistic child. By considering the p-value it can be concluded that friends'

dimension of perceived social support contributed significantly in facilitating optimism at a .05 level of significance. Hence, hypothesis 2 is supported.

Table 5: Results of regression analysis considering the Family dimension of perceived social support as a facilitator of the Optimism dimension of life orientation test (LOT) among the caregivers of children diagnosed with an autism spectrum disorder

Predictor variable	Standard β coefficient	R	R ²	R ² change	F	p
Family dimension of perceived social support	-.005 ^a	-.005 ^a	.000	.000	.001	.971 ^b

p>0.05

Dependent variable= Optimism

Independent variable/ Predictor (constant) = Family dimension of perceived social support

Family support is the backbone for everyone, especially for those who have children with special needs because family provides social, emotional, moral, and financial support for the caregivers and parents of such children; family support is like a pillar for the caregivers of specially abled children to stay confident and resilient at the time of difficulty; and also helps in facilitating optimism and overall well-being among them, but in the present study, from table 5, it can be seen that Family dimension of perceived social support contributed very less in facilitating the optimism among the caregivers of the children identified with an autism spectrum disorder.

The square of correlation showed that .000% of the variance in optimism was explained by the family dimension of perceived social support. The β value of the family dimension of perceived social support (β = -.005) suggested that it has a negative association between the family dimension of perceived social support and optimism among the caregivers of children with an autism. By considering the p-value it can be concluded that the family dimension of perceived social support contributed very little and insignificantly in facilitating optimism at a .05 level of significance. Hence, hypothesis 3 is not supported.

Table 6: Showing the results of regression analysis considering overall perceived social support as a facilitator of the Optimism dimension of life orientation test (LOT) among the caregivers of children diagnosed with an autism spectrum disorder

Predictor variable	Standard β coefficient	R	R ²	R ² change	F	p
Total perceived social support	.124 ^a	.124 ^a	.015	.015	.913	.343 ^b

p>0.05

Dependent variable= Optimism

Independent variable/ Predictor (constant) = Total perceived social support

From table 6, it can be seen that overall perceived social support emerged as the facilitator of optimism among the caregivers of the children with an autism spectrum disorder. The square of correlation showed that .015% of the variance in optimism was explained by overall perceived social support. The β value of overall perceived social support (β = .124) suggested that it has a significant relationship between

overall perceived social support and optimism among the caregivers of children with autism. Number of social network increases, optimism also increases. By considering the p-value it can be concluded that overall perceived social support contributed significantly in facilitating optimism at a .05 level of significance. Hence, hypothesis 4 is supported.

Table 7: Showing the results of regression analysis considering the Significant Others dimension of perceived social support and pessimism dimension of life orientation test (LOT) among the caregivers of children diagnosed with an autism spectrum disorder

Predictor variable	Standard β coefficient	R	R ²	R ² change	F	p
Significant others dimension of perceived social support	.156 ^a	.156 ^a	.024	.024	1.454	.233 ^b

p>0.05

Dependent variable= Pessimism

Independent variable/ Predictor (constant) = Significant others dimension of perceived social support

From table 7, it can be seen that Significant Others' dimension of perceived social support was associated with pessimism traits among the caregivers of the children with autism. It means that the caregivers

who received support from significant others help in reducing pessimistic traits and enhance optimism and wellbeing among them that ultimately leads to good care of their children and to live life meaningfully. The square

of correlation showed that .024% of the variance in pessimism was explained by significant other dimensions of perceived social support. The β value of the significant others dimension of perceived social support ($\beta = .156$) suggested that it has a significant association between the significant others dimension of perceived social support and pessimism among the

caregivers of children with autism spectrum disorder. By considering the p-value it can be concluded that significant other dimensions of perceived social support contributed significantly in reducing pessimistic traits at a .05 level of significance. Hence, hypothesis 5 is supported.

Table 8: Results of regression analysis considering the Friends dimension of perceived social support and the pessimism dimension of life orientation test (LOT) among the caregivers of children diagnosticate with an autism spectrum disorder

Predictor variable	Standard β coefficient	R	R ²	R ² change	F	p
Friends dimension of perceived social support	.156 ^a	.156 ^a	.024	.024	1.446	.234 ^b

p>0.05

Dependent variable= Pessimism

Independent variable/ Predictor (constant) = Friends dimension of perceived social support

Above mentioned table 8, it can be seen that Friends' dimension of perceived social support was also pertinent to pessimism traits among the caregivers of the children diagnosed with autism. It means that the caregivers who received good and healthy support from their friends help in reducing pessimistic traits, inculcate positivity, and enhance optimism and wellbeing among them that ultimately leads to good care of their children and live a life with full of joy. The square of correlation showed that .024% of the variance in pessimism was

explained by the friend's dimension of perceived social support. The β value of friends' dimension of perceived social support ($\beta = .156$) suggested that it has a significant association between the friend's dimension of perceived social support and pessimism among the caregivers of children with autism. By considering the p-value it can be concluded that friends' dimension of perceived social support contributed significantly in reducing pessimistic traits at a .05 level of significance. Hence, hypothesis 6 is supported.

Table 9: Showing the results of regression analysis considering the Family dimension of perceived social support and pessimism dimension of life orientation test (LOT) among the caregivers of children identified with an autism spectrum disorder

Predictor variable	Standard β coefficient	R	R ²	R ² change	F	p
Family dimension of perceived social support	-.192 ^a	-.192 ^a	.037	.037	2.213	.142 ^b

p>0.05

Dependent variable= Pessimism

Independent variable/ Predictor (constant) = Family dimension of perceived social support

From table 9, it can be seen that the Family dimension of perceived social support emerged as an inhibitor of pessimism traits among the caregivers of an autistic child. It means that family support helps in reducing pessimistic traits, inculcate positivity, and enhance optimism and wellbeing among the caregivers of children with autism that ultimately leads to good care of their children and live a life with meaning and purpose. The square of correlation showed that .037% of the variance in pessimism was explained by the family dimension of perceived social support. But in the present

study, the β value of the family dimension of perceived social support ($\beta = -.192$) showed negative correlation which suggested that there is a negative association between the family dimension of perceived social support and pessimism among the caregivers of children with autism. By considering the p-value it can be concluded that the family dimension of perceived social support contributed insignificantly in reducing pessimistic traits at a .05 level of significance. Hence, hypothesis 7 is not supported.

Table 10: Results of regression analysis considering the overall perceived social support and pessimism dimension of the life orientation test (LOT) among the caregivers of children with autism spectrum disorder

Predictor variable	Standard β coefficient	R	R ²	R ² change	F	p
Total perceived social support	.107 ^a	.107 ^a	.011	.011	.673	.415 ^b

p>0.05

Dependent variable= Pessimism

Independent variable/ Predictor (constant) = Total perceived social support

It is visible from table 10, that overall perceived social support was correlated with pessimism among the

caregivers of the children with autism. It means that positive and healthy support from significant others,

friends, and family helps in reducing pessimistic traits, inculcate positivity, positively develop personality, and also enhance optimism and wellbeing among the caregivers that ultimately leads to good care of their children and stay mentally strong and confident at the time of adversity. The square of correlation showed that .011% of the variance in pessimism was explained by overall perceived social support. The β value of overall

perceived social support ($\beta = .107$) suggested that it has a significant relationship between overall perceived social support and pessimism among the caregivers of children with autism. By considering the p-value it can be concluded that overall perceived social support contributed significantly in enhancing optimism and reducing pessimistic traits at a .05 level of significance. Hence, hypothesis 8 is supported.

Table 11: Showing the results of regression analysis considering total (overall) perceived social support as a facilitator of total life orientation test (LOT) among the caregivers of the children with autism spectrum disorder.

Predictor variable	Standard β coefficient	R	R ²	R ² change	F	p
Total perceived social support	.157 ^a	.157 ^a	.025	.025	1.459	.232 ^b

p>0.05

Dependent variable= Total LOT (optimism, pessimism)

Independent variable/ Predictor (constant) = Total perceived social support

From table 11, it can be seen that overall perceived social support emerged as a facilitator of optimism and inhibitor of pessimism among the caregivers of the children with autism. It means that positive and healthy support from significant others, friends, and family helps in reducing pessimistic traits, enhance positivity, develop personality, and also enhance optimism and wellbeing among the caregivers that ultimately leads to provide better care and quality of life to their children and stay mentally strong and confident at the time of adversity. The square of correlation showed that .025% of the variance in total LOT was explained by overall perceived social support. The β value of overall perceived social support ($\beta = .157$) suggested that it has a significant association between overall perceived social support and total LOT among the caregivers of an autistic child. By considering the p-value it can be concluded that overall perceived social support contributed significantly in enhancing optimism and reducing pessimistic traits at a .05 level of significance. Hence, hypothesis 9 is supported.

Perceived social support was considered to be positively and significantly related with optimism among the caregivers of children with autism in the present study. This finding provides new insight that the perceived social support is one of the key components that helps in enhancing positive characteristics and positivity among the caregivers who had special children including children with autism. Support from friends, significant others, community, family and so on aids the parents and caregivers to live a life with full of meaning, raise their children with positive thinking, it also helps in reducing the level of stress, pessimistic traits, and enhancing optimism and improving their well-being. This result is concordant with the results of (Ersoy & Curuk, 2009; Luther, Canham & Cureton, 2005) who reported that the perceived social support helps in reducing the levels of distress and also helps to adapt best and adaptive coping strategies to resolve their day to day problems in the families of children with autism.

The study also showed a statistically significant association between perceived social support and standard of living in the caregivers of children with autism, indicating greater social support leads to a good and healthy quality of life (Ho, 2005). Mancil, *et al.*, (2009) reported anger, self-harm, and destructive behavior of autistic children predicts parental stress. Another study reported perceived social support provides real social and emotional help; it also helps in making rational decision and solving problems.

In the present research study, the two dimensions of perceived social support including support from significant others and support from friends were positively correlated with optimism, enhances optimism and positivity towards their differently abled child among them and it also reduces pessimistic personality traits that may become obstacle for their special child, but the support from family play a very few roles in facilitating optimism among the caregivers and it also has insignificant association with optimism. Caregivers received less support from family, and more support from friends and significant others which aids in enhancing optimism and positivity in the caregivers of autistic children and reducing the level of stress, frustration and emotional breakdown are the main findings of the present research study. This result is congruous with the results of (Plumb, 2011) who reported caregivers of an autistic child who had higher levels of apprehension and distress needed more social support, therefore a positive relationship was found between perceived social support and distress.

Support received from friends, family, and partners is especially helpful in developing and enhancing the well-being of mothers of autistic children (Boyd, 2002). Several forms of research were conducted on other populations with optimism and social support and found that optimism and social support are significantly and positively correlated and social support also negotiates the relationship of optimism and mental well-being (Brissette *et al.*, 2002; Daugall *et al.*, 2001;

Shelby *et al.*, 2008), as well as the relationship of social support and psychological well-being (Karademas, 2006). Therefore, we can say that social support facilitates and increases optimism and well-being that leads to developing positive outcomes, and decreases stress among the caregivers of an autistic child and any other disability.

Hence, in the present research study, caregivers of the children with an autism spectrum disorder received more support from significant others and friends. It means significant others and friends play a major role in their life and also provide emotional, moral and social support and help them to overcome life challenges as well as motivate them to deal with stressful situations and these two significant others and friends facilitated optimism and well-being among the caregivers. And on the other side, caregivers of the children with autism received very little support from their family in this research study because of so many reasons. One of the reasons which the researcher found in this study is that the family struggled with various issues simultaneously for example, in this study, most of the participants reported that the primary issue is time management issue, financial crunch, longer and expensive treatment of children, and their own emotional breakdown; and the secondary issue is provide better education and quality of life to other children in their family and maintain their social network.

CONCLUSION

The present research study concluded that a positive association was established between perceived social support and optimism. The people who are optimistic and have a greater number of social support, they easily manage their positivity and focus towards their goals, despite facing various challenges throughout their life (Carver & Scheier, 2002). Emerging literature shows, having optimistic attitudes in the mothers of children with developmental deficits have better and healthy coping skills and abilities (Baker, *et al.*, 2005). Adequate social networks play a key role in promoting optimism among the caregivers of special children. Thus, the present research study suggested that positive personality traits and a healthy and large number of supportive networks help in raising the special child with less difficulty and also helps in overcoming the challenges of life and enhances overall personality and well-being. Present research study also suggested if the government opens a rehabilitation centers for special children which requires minimum cost in the treatment that would be helpful for those parents who are from marginalized section having differently-abled child. Awareness program is needed for those who are unaware about the deficits of their children and their own mental health as well as counseling is needed for those who are aware but they didn't find proper ways and strategies to overcome the challenges. These are the research implications.

Acknowledgements

The authors gratefully acknowledge the head of rehabilitation center and research participants (caregivers) for their participation.

Authors' Contributions

Dr. Roma Seraj contributed to data collection, wrote the research article, statistical analysis, data interpretation, read and approved the manuscripts.

Ethical approval and consent to participate

Written informed consent was obtained from all participants before administering the questionnaire. Ethical approval for the study was obtained from Aligarh Muslim University (AMU), Aligarh.

Funding: The authors received no financial support for the research, authorship, and publication of this article.

Competing Interests: The authors declare that they have no competing interests.

REFERENCES

- Baker, B. L., Blacher, J., & Olsson, M. B. (2005). Preschool children with and without developmental delay: Behavior problems, parents' optimism, and well-being. *Journal of Intellectual Disability Research*, 49(8), 575-590. <https://doi.org/10.1111/j.1365-2788.2005.00691.x>.
- Bayat, M. (2007). Evidence of resilience in families of children with an autism spectrum disorder. *Journal of Intellectual Disability Research*, 51(9), 702-714. <https://doi.org/10.1111/j.1365-2788.2007.00960.x>.
- Bekhet, A. K., Johnson, N. L., & Zauszniewski, J. A. (2012). Resilience in family members of person with autism spectrum disorder: A review of the literature. *Issues in Mental Health Nursing*, 33(10), 650-656. <https://doi.org/10.3109/01612840.2012.671441>.
- Benson, P. R. (2006). The impact of child symptoms severity on depressed mood among parents of children with autism spectrum disorder: The mediating role of stress proliferation. *Journal of Autism and Developmental Disorders*, 36(5), 685-695. <https://doi.org/10.1007/s10803-006-0112-3>.
- Beresford, B. (2007). Coping with the care of a severely disabled child. *Health & Social Care in the Community*, 4(1), 30-40. <https://doi.org/10.1111/j.1365-2524.1996.tb00045.x>.
- Bishop, S. L., Richler, J., Cain, A. C., & Lord, C. (2007). Predictors of perceived negative impact in mothers of children with an autism spectrum disorder. *American Journal of Mental Retardation*, 112(6), 450-461. [https://doi.org/10.1352/0895-8017\(2007\)112\[450:POPNI\]2.0.CO;2](https://doi.org/10.1352/0895-8017(2007)112[450:POPNI]2.0.CO;2).
- Boyd, B. A. (2002). Examining the relationship between stress and lack of social support in mothers

- of children with autism. *Focus on Autism and other Developmental Disabilities*, 17(4), 208-215. <https://doi.org/10.1177/10883576020170040301>.
- Brissette, I. Scheier, M. F., & Carver, C. S. (2002). The role of optimism in social network development, coping, and psychological adjustment during a life transition. *Journal of Personality and Social Psychology*, 82(1), 102-111. <https://doi.org/10.1037/0022-3514.82.1.102>.
 - Bromley, J., Hare, D. J., Davison, K., & Emerson, E. (2004). Mothers supporting children with autistic spectrum disorders: Social support, mental health status and satisfaction with services. *Autism*, 8(4), 409-423. <https://doi.org/10.1177/1362361304047224>.
 - Broady, T. R., Stoyles, G. J., & Morse, C. (2017). Understanding carers' lived experience of stigma: The voice of families with a child on the autism spectrum. *Health & Social Care in the Community*, 25(1), 224-233. <https://doi.org/10.1111/hsc.12297>.
 - Cappe, E., Wolff, M., Bobet, R., & Adrien, J. M. (2011). Quality of life: a key variable to consider in the evaluation of adjustment in parents of children with autism spectrum disorder and in the development of relevant support and assistance program. *Quality of Life Research*, 20(8), 1279-1294. <https://doi.org/10.1007/s11136-011-9861-3>.
 - Conversano, C., Rotondo, A., Lensi, E., Della Vista, O., Arpone, F., & Reda, M. A. (2010). Optimism and its impact on mental and physical well-being. *Clinical Practice and Epidemiology in Mental Health*, 6, 25-29. <https://doi.org/10.2174/1745017901006010025>.
 - Daugall, A. L., Hyman, K. B., Hayward, M. C., McFeeley, S., & Baum, A. (2001). Optimism and traumatic stress: The importance of social support and coping 1. *Journal of Applied Social Psychology*, 31(2), 223-245.
 - Dunn, M. E., Burbine, T., Bowers, C. A., & Tantleff-Dunn, S. (2001). Moderators of stress in parents of children with autism. *Community Mental Health Journal*, 37(1), 39-52. <https://doi.org/10.1023/a:1026592305436>.
 - Eapen, V., & Guana, J. (2016). Parental QOL in autism spectrum disorder: Current status and future directions. *Acta Psychopathologica*, 2(1), 5. <https://doi.org/10.4172/2469-6676.100031>.
 - Ersoy, O., & Curuk, N. (2009). The importance of social support for the mothers of children who have special needs. *Family and Community Journal of Education, Culture and Research*, 5(17), 104-110.
 - Ersoy, O., & Curuk, A. G. U. N. (2009). The importance of social support in mothers of children with special needs. *Journal of Social Policy Studies*, 17(17), 104-110. <https://dergipark.gov.tr/download/article-file/198189>.
 - *Examples of optimism- Examples in your dictionary*. Available at: <https://examples.yourdictionary.com/examples-of-optimism.html>.
 - Giallo, R., Wood, C. E., Jellett, R., & Porter, R. (2013). Fatigue, well-being and parental self-efficacy in mothers of children with an autism spectrum disorder. *Autism*, 17(4), 465-80. <https://doi.org/10.1177/1362361311416830>.
 - Gill, M. J., & Harris, S. L. (1991). Hardiness and social support as predictors of psychological discomfort in mothers of children with ASD. *Journal of Autism and Developmental Disorders*, 21(4), 407-416. <https://doi.org/10.1007/BF02206867>.
 - Glidden, L. M., Billings, F. J., & Jobe, B. M. (2006). Personality, coping style and well-being of parents rearing children with developmental disabilities. *Journal of Intellectual Disability Research*, 50 (12), 949-962. <https://doi.org/10.1111/j.1365-2788.2006.00929.x>.
 - Hamm, M. P., Chisholm, A., Shulhan, J., Milne, A., Scott, S. D., Given, L. M., & Hartling, L. (2013). Social media use among patients and caregivers: A scoping review. *BMJ Open*, 3(5), e002819. <https://doi.org/10.1136/bmjopen-2013-002819>.
 - Hassall, R., Rose, J., & McDonald, J. (2005). Parenting stress in mothers of children with an intellectual disability: The effects of parental cognitions in relation to child characteristics and family support. *Journal of Intellectual Disability Research*, 49(6), 405-418. <https://doi.org/10.1111/j.1365-2788.2005.00673.x>.
 - Ho, G. S. Y. (2005). *Chinese immigrant families with developmentally delayed children: level of acculturation and quality of life*. The Wright Institute.
 - Honey, E., Hastings, R. P., & McConachie, H. (2005). Use of the questionnaire on resources and stress (QRS-F) with parents of young children with autism. *Autism*, 9(3), 246-255. <https://doi.org/10.1177/1362361305053256>.
 - Johnson, N., Frenn, M., Feetham, S., & Simpson, P. (2011). Autism spectrum disorder: Parenting stress, family functioning and health-related quality of life. *Families, System, & Health*, 29(3), 232. <https://doi.org/10.1037/a0025341>.
 - Karademas, E. C. (2006). Self-efficacy, social support, and well-being: The mediating role of optimism. *Personality and Individual Differences*, 40(6), 1281-1290.
 - Kempainen, J., Johnson, M. O., Phillips, J. C., Sullivan, K. M., Corless, I. B., Reid, P. P., Kirksey, K.,... & Beamon, E. R. (2013). A multinational study of self-compassion and human immunodeficiency virus-related anxiety. *International Nursing Review*, 60(4), 477-486. <https://doi.org/10.1111/inr.12056>.

- Luther, E. H., Canham, D. L., & Cureton, V. Y. (2005). Coping and social support for parents of children with autism. *The Journal of School Nursing*, 21(1), 40-47. [https://doi.org/10.1622/1059-8405\(2005\)021\[0040:cassfp\]2.0.co;2](https://doi.org/10.1622/1059-8405(2005)021[0040:cassfp]2.0.co;2).
- Mancil, G. R., Boyd, B. A., & Bedesem, P. (2009). Parental stress and autism: Are there useful coping strategy? *Education and Training in Developmental Disabilities*, 44(4), 523.
- Mausbach, B. T., Roepke, S. K., Chattillion, E. A., Harmell, A. L., Moore, R., Romero-Moreno, R., Bowie, C. R., & Grant, I. (2012). Multiple mediators of the relation between care giving stress and depressive symptoms. *Aging and Mental Health*, 16(1), 27-38. <https://doi.org/10.1080/13607863.2011.615738>.
- Meenakshi, Pareek, B., & Kaur, R. (2018). Family Resilience and Perceived Social Support among care givers of Children with Autistic Spectrum Disorder. *Asian Journal of Nursing Education and Research*, 8(1), 51-56. <https://doi.org/10.5958/2349-2996.2018.00012.5>.
- Mugno, D., Ruta, L., D'Arrigo, V. G., & Mazzone, L. (2007). Impairment of quality of life in parents of children and adolescents with the pervasive developmental disorder. *Health Quality of Life Outcomes*, 5(1), 22. <https://doi.org/10.1186/1477-7525-5-22>.
- Olsson, M. B., & Hwang, C. P. (2001). Depression in mothers and fathers of children with intellectual disability. *Journal of Intellectual Disability Research*, 45(6), 535-543. <https://doi.org/10.1046/j.1365-2788.2001.00372.x>.
- 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. <https://doi.org/10.1007/s10803-007-0497-7>.
- Özkubat, U., Özdemir, S., Selimoğlu, Ö. G., & Töret, G. (2014). Journey to autism: Views of parents with autistic children on their perceptions of social support. *Journal of Ondokuz Mayıs University Faculty of Education*, 33 (1), 323-348. <http://dergipark.gov.tr/download/article-file/188069>.
- Park, C. L., & Folkman, S. (1997). Meaning in the context of stress and coping. *Review of General Psychology*, 1(2), 115-144. <https://doi.org/10.1037/1089-2680.1.2.115>.
- Plumb, J. C. (2011). The impact of social support and family resilience on parental stress in families with a child diagnosed with an autism spectrum disorder. Published Ph.D. dissertation. University of Pennsylvania.
- Pearlin, L. J., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior*, 19(1), 2-21.
- Polita, N. B., & Tacla, M. T. G. M. (2014). Network and social support to families of children with cerebral palsy. *Escola Anna Nery*, 18(1), 75-81. <https://doi.org/10.5935/1414-8145.20140011>.
- Scheier, M. F., & Carver, C. S. (2002). Optimism. Dalam CR Snyder & SJ Lopez. *Handbook of Positive Psychology*, 231-255.
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): a re-evaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, 67(6), 1063-1078. <https://doi.org/10.1037/0022-3514.67.6.1063>.
- Shelby, R. A., Crespín, T. R., Wells-Di Gregorio, S. M., Lamdan, R. M., Seigal, J. E., & Taylor, K. L. (2008). Optimism, social support and adjustment in African American women with breast cancer. *Journal of Behavioral Medicine*, 31(5), 433-444. <https://doi.org/10.1007/s10865-008-9167-2>.
- Singh, P., Ghosh, S., & Nandi, S. (2017). Subjective burden and depression in mothers of children with autism spectrum disorder in India: Moderating effect of social support. *Journal of Autism and Developmental Disorder*, 47, 3097-3111. <https://doi.org/10.1007/s10803-017-3233-y>.
- Smith, L. E., Hong, J., Seltzer, M. M., Greenberg, J. S., Almeida, D. M., & Bishop, S. L. (2010). Daily experiences among mothers of adolescents and adults with an autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 40(2), 167-178. <https://doi.org/10.1007/s10803-009-0844-y>.
- Social support- Wikipedia, the free encyclopedia. Retrieved from <https://en.wikipedia.org/wiki/social/-support>.
- Tennent, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., & Stewart-Brown, S. (2007). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): Development and UK validation. *Health and Quality of Life Outcomes*, 5(1), 63. <https://doi.org/10.1186/1477-7525-5-63>.
- Tiba, A., Johnson, C., & Vadineanu, A. (2012). Cognitive vulnerability and adjustment to having a child with a disability in parents of children with an autistic spectrum disorder. *Journal of Evidence-Based Psychotherapies*, 12(2), 209-18.
- Weiss, J. A., Baker, J. K., & Butter, E. (2016). *Mental health treatment for people with autism spectrum disorder (ASD): Fostering needs of people with ASD*. American Psychological Association. Spotlight on disability newsletter. Retrieved from <https://www.apa.org/pi/disability/resources/publications/...autism-spectrum-disorder>.
- Weiss, M. J. (2002). Hardiness and social support as predictors of stress in mothers of typical children, children with autism, and children with mental retardation. *Autism*, 6(1), 115-130. <https://doi.org/10.1177/1362361302006001009>.

- *What is autism? Autism society*. Retrieved from <https://www.nimh.nih.gov/health/topics/autism-spectrum-disorder-asd/index.shtml>.
- *What is optimism? Optimism/Psychology Today*. Retrieved from <https://www.psychologytoday.com/US/basics/optimism>.
- *What is optimism? Definition & explanation- Video & Lesson*. Retrieved from <https://study.com/academy/lesson/what-is-optimism-definition-lesson-quiz.html>.
- Whitman, T. L. (2004). *The development of autism: A self-regulatory perspective*. Jessica Kingsley Publishers.
- Whittingham, K., Wee, D., Sanders, M. R., & Boyd, R. (2013). Predictors of psychological adjustment experienced parenting burden and chronic sorrow symptoms in parents of children with cerebral palsy. *Child: Care, Health and Development*, 39(3), 366-373. <https://doi.org/10.1111/j.1365-2214.2012.01396.x>.
- Whittingham, K., Wee, D., Sanders, M. R., & Boyd, R. (2013). Sorrow, coping, and resiliency: parents of children with cerebral palsy share their experiences. *Disability and Rehabilitation*, 35(17), 1447-1452. <https://doi.org/10.3109/09638288.2012.737081>.
- Yatchmenoff, D. K., Koren, P. E., Friesen, B. J., Gordon, L. J., & Kinney, R. F. (1998). Enrichment and stress in families caring for a child with a serious emotional disorder. *Journal of Child and Family Studies*, 7(2), 129-145. <https://doi.org/10.1023/A:1022935014502>.
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1998). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, 52(1), 30-41. https://doi.org/10.1207/s15327752jpa5201_2.