

Depression, Anxiety, Stress And Rumination as Predictive of Perceived Social Support Levels of Parents With Special Needs Children

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Abstract— This study aims at investigating the relationships between perceived social support, depression, anxiety, stress and rumination levels of parents having kids with special needs. We also examined the predictive effects of depression, anxiety, stress and rumination on perceived social support. The study group of the research consists of 619 parents having children with special needs, 369 of whom were mothers (59.6%, $M=39.40$, $SS=7.49$), and 250 of whom were fathers (40.4%, $M=42.40$, $SS=8.12$), all of whom we reached through convenient sampling method. 163 (26.3%) of the children with special needs had Intellectual Disability, 251 (40.3%) of them had Autism Spectrum Disorder, 15 (2.4%) of them had Visual Impairment, 17 (2.7%) of them had Hearing Impairment, 29 (4.7%) of them had Physical Disability, 65 (10.54%) of them had Multiple Disabilities, and 79 (12.8%) of them were diagnosed with something different. We collected the study data face to face through scale forms. The participants joined the study voluntarily, and it took them 25 minutes to respond to the scale items. Multidimensional Scale of Perceived Social Support, Depression, Anxiety and Stress Scale short form, Rumination About an Interpersonal Offense Scale and Personal Information Form were used as data collection tools. In the analysis of the data, we conducted descriptive statistics, t-test, Pearson Product Moments Correlation Coefficient analysis, and multiple linear regression analysis. According to the current study findings and t-test results, the perceived social support scores of parents having children with special needs do not differ significantly according to their being a mother or father ($t_{617}=-.721$, $p>.05$). According to the results of the correlation analysis, perceived social support scores were negatively related to depression ($r=-.256$, $p<.01$), anxiety ($r=-.166$, $p<.01$), stress ($r=-.208$, $p<.01$) and rumination ($r=-.207$, $p<.01$) at a low-level. According to the results of multiple linear regression analysis, rumination and depression, anxiety, and stress scores significantly predicted perceived social support scores ($F_{4-614}=13.875$, $R=.28$, $R^2=.08$, $p<.01$). Lastly, we discussed the current study findings. It is seen that perceived social support has a positive effect on the ability of parents with special needs children to cope with negative situations.

Index Terms— Parents with special needs children, perceived social support, rumination, depression, anxiety, and stress

I. INTRODUCTION

Each individual has different developmental features, and they shape their life depending on these features. Those who have a different development have been called “an individual

with special needs” in recent studies [1]. Individuals with special needs are diagnosed with one or a few of developmental disorders such as autism spectrum disorder (ASD), mental retardation (MR), motor speech disorders, vision and hearing impairment, physical disability, attention deficit and hyperactivity disorder, or learning disability. Individuals who are diagnosed with these are called individuals with special needs [2].

It is not surprising that it is worrisome for parents to learn that their kids have special needs. These parents face many responsibilities brought by having a kid with special needs, and they try to fulfil these responsibilities as long as their kids are alive [3]. Social support is of vital importance for parents who have learnt that their kids have special needs [4]-[5]. Social support can be defined as a phenomenon when individuals believe that they are cared about, loved and valued by those around them, and when they know that they are surrounded by people who will give them emotional, physical and economic support in case of a crisis in life. Moreover, social support is considered to be an important factor that can protect individuals’ mental health [6]-[7].

Social support can increase individuals’ strength to overcome depression, anxiety and stress factors [8] as well as improving their life quality [9]-[10]. In other words, when parents have a low level of perceived social support, they are more likely to suffer from depression, anxiety and stress.

Depression refers to an intense self-blame that will damage one’s internal balance and relationship with others combined with a decrease in self-value, an increase in sorrowful mood as well as not being able to enjoy daily life or concentrate on something [11]. Anxiety refers to physiological and psychological reactions that serve as protecting oneself when an individual gives in case of danger, appearing with emotions such as unrest, fear or worry [2]. Stress, on the other hand, refers to physical and emotional reactions that aim to eradicate the feeling of unrest caused by stimulants and to re-adapt in the face of changing conditions, internal and external stimulants, damaged internal balance regardless of its advantages or disadvantages [2].

After parents start to have symptoms of depression, anxiety and stress, they might intensely and continuously focus on these symptoms, which leads to a ruminative thinking style [12]. Ruminative thinking can be described as a repetitive thinking style focusing on a specific issue even without the presence of external conditions evoking such thoughts [13]. On

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the other hand, rumination about interpersonal offenses refers to a state-specific rumination when an individual has experienced an issue with someone and thinks the other person has made a mistake, the level of negative feelings towards that person increases as the individual thinks about the mistake done before [14].

It is obvious that parents who have kids with special needs should have a high level of perceived social support. Because of that reason, it is necessary to know about the factors that affect parents' level of perceived social support. In this context, the current study aims at investigating the relations among perceived social support, depression, anxiety, stress and rumination of individuals having kids with special needs. Furthermore, the study also focuses on the predictive effect of depression, anxiety, stress and rumination on perceived social support.

II. METHOD

Research Model: The current study has a quantitative research design. We employed correlational survey model as the study aims at identifying the presence and degree of the relation between two variables [15].

Study Group: The study group is composed of 619 parents having kids with special needs, 369 of whom were mothers (% 59.6, $\bar{X}=39.40$, $SS=7.49$) and 250 (% 40.4, $\bar{X}=42.40$, $SS=8.12$) of whom were fathers, who were all reached via convenience sampling method. 163 (26.3%) of the kids with special needs had a mental disability, 251 (40.3%) of them had autism spectrum disorder, 15 (2.4%) of them had vision impairment, 17 (2.7%) of them had hearing impairment, 29 (4.7%) of them had a physical disability, 65 (10.54%) of them had more than one disability and 79 (12.8%) of them were diagnosed with something different.

Data Collection Tools

Multidimensional Perceived Social Support Scale: It was developed by Zimet, Dahlem, Zimet et al. (1988), and adapted into Turkish culture by Eker, Arkar and Yaldiz (2001). The scale is composed of 12 items. A high score received from the scale refers to a high level of perceived social support. Cronbach alpha coefficient of the scale was calculated to be .83. In the current study, we found out that Cronbach alpha was .92.

Depression, Anxiety and Stress Scale Short Form (DASS21): The long version of Depression, Anxiety and Stress Scale, which is composed of 42 items, was transformed into a shorter version called 'Depression, Anxiety, Stress (DAS)' by Sarıçam (2018). The scale is composed of 21 items. Cronbach alpha internal consistency coefficient was found to be $\alpha=0.87$ for the sub-scale of depression, $\alpha=0.85$ for the sub-scale of anxiety and $\alpha=0.81$ for the sub-scale of stress. In the current study, we found out that Cronbach Alpha value was $\alpha=0.88$ for the sub-scale of depression, $\alpha=0.88$ for the sub-scale of anxiety and $\alpha=0.85$ for the sub-scale of stress.

Rumination about Interpersonal Offenses Scale: This scale was developed by Wade, Vogel, Liao and Goldman (2008), and adapted into Turkish culture by Oral and Arslan (2017). The scale is composed of 6 items. A high score received from the

scale refers to a high level of rumination about interpersonal offenses. The Cronbach alpha coefficient of the scale was calculated to be .88. In the current study, we found out that Cronbach alpha was .93.

Personal Information Form: We created a personal information form to gather demographic information about the parents of kids with special needs such as age, gender, the diagnosis of the kid with special needs.

Data Collection: We contacted the participants face-to-face to gather data. We informed the participants of the principals about confidentiality and volunteer participation. The volunteer participants responded to the items in the scales. It took participants around 25 minutes to respond to the items in the scales.

Data Analysis: We conducted descriptive statistics, independent sample t-test, Pearson Product-Moment Correlation Coefficients and multiple linear regression analysis in order to get information about the scales and participants.

III. FINDINGS

TABLE I. Descriptive Statistics Regarding the Variables

Scale	N	\bar{X}	ss	Skewness	Kurtosis	α
Perceived Social Support	619	60.65	15.99	-.416	-.417	.92
Depression	619	7.45	5.09	.493	-.490	.88
Anxiety	619	6.63	5.12	.550	-.466	.88
Stress	619	8.80	4.96	.231	-.551	.85
Rumination about Interpersonal Offenses	619	17.52	7.08	-.019	-.999	.93

We calculated the Mahalanobis distance to see if the scale scores displayed normal distribution or not, and removed outliers from the data set [20]. The number of responses by participants was 622 at first, whereas it decreased to 619 after removing the outliers. We found out that the scale scores displayed normal distribution after removing the outliers. The scores of Perceived Social Support, Depression, Anxiety, Stress and Rumination about Interpersonal Offenses varied between ± 1.0 , which meant that they had a normal distribution [21]. We calculated Cronbach alpha coefficients (α) to investigate the reliability of the scales. We concluded that the scale scores of Multidimensional Perceived Social Support, Depression, Anxiety, Stress and Rumination about Interpersonal Offenses all had Cronbach's alpha coefficient (α) values equal to or over .70, which meant they were all reliable [22].

TABLE II. t-Test Results Regarding the Perceived Social Support Scores of Parents Having Kids with Special Needs According to Their Gender

Scale	Parent	N	\bar{X}	ss	t	p
Perceived Social Support	Mother	369	60.27	15.39	-.721	.471
	Father	250	61.21	16.86		

As is seen in Table II, perceived social support scores of parents having kids with special needs did not differ significantly according to the gender of parents ($t_{617}=-.721$, $p>.05$).

TABLE III. The Results of Pearson Correlation among Variables

	Perceived Social Support
Depression	-.256**
Anxiety	-.166*
Stress	-.208**
Rumination about Interpersonal Offenses	-.207**

**p<.05, **0<.01

As is seen in Table III, the participant parents' level of perceived social support was negatively related to depression ($r=-.256$, $p<.01$), anxiety ($r=-.166$, $p<.01$), stress ($r=-.208$, $p<.01$) and rumination about interpersonal offenses ($r=-.207$, $p<.01$) at a low level.

TABLE IV. Multiple Linear Regression Results Regarding the Prediction of Perceived Social Support Scores

Predicted Variable	Predictive Variable	B	Standard Error	β	t	p
Perceived Social Support	Fixed	70.078	1.705		41.096	.000
	Depression	-.959	.229	-.306	-4.184	.000**
	Anxiety	.570	.234	.183	2.438	.015*
	Stress	-.169	.232	-.052	-.728	.467
	Rumination about Interpersonal Offenses	-.260	.104	-.115	-2.494	.013*

As is seen in Table IV, the scores of depression, anxiety, stress and rumination about interpersonal offenses of parents having kids with special needs predicted their scores of perceived social support at a statistically significant level ($F_{4,614}=13.875$, $R=-.29$, $R^2=.09$, $p<.01$). Depression, anxiety, stress and rumination about interpersonal offenses accounted for 9% of the total variance on perceived social support scores ($R^2=.09$).

IV. DISCUSSION

The current study findings show that parents' level of perceived social support does not differ significantly according to their being a mother or father. Kurtbeyoğlu and Yıldız-Demirtaş (2020) carried out a study with parents having kids diagnosed with learning disability, and concluded that level of perceived social support changed according to being a mother or a father, while mothers had a higher level of perceived social support. Another study conducted by Bromley et al. (2004) on parents having kids with autism found out that the level of perceived social support did not differ according to being a mother or a father. Kaymakçı et al. (2022) also carried out a study on parents having kids with special needs, and found out that parents' level of perceived social support did not change significantly according to gender. Literature review shows that there are many studies that support or contradict the current study findings.

Another finding of the current study reveals that parents' level of perceived social support was negatively related to depression, anxiety and stress at a statistically significant level. Furthermore, scores of depression, anxiety, stress and rumination about interpersonal offenses predicted the level of perceived social support at a statistically significant level. In

other words, the lower parents' level of perceived social support is, the higher their level of depression, anxiety, stress and rumination about interpersonal offenses is. Kurtbeyoğlu and Yıldız-Demirtaş (2020) carried out a study with parents having kids diagnosed with learning disability, and they found out that there was a negative relationship between perceived social support and depression. Another study conducted by Şentürk and Varol Saraçoğlu (2013) on mothers having kids with special needs concluded that mothers' level of perceived social support was negatively related to depression at a statistically significant level. Bilgin (2012) also carried out a study on parents having kids with mental retardation, and found out that parents' level of social support was negatively related to their level of depression.

Tunç and Özkardaş (2020) carried out a study on mothers having kids with autism, and concluded that there was a statistically significant negative relationship between mothers' level of perceived social support and their level of anxiety. Çoşkun and Akkaş (2009) also conducted a study on mothers having kids with special needs, and they found out that there was a negative relationship between mothers' level of perceived social support and continuous anxiety. Özkubat et al. (2014) carried out a qualitative study on parents having kids with autism, and they found out that parents had concerns about how their kids would continue their life after their death, and they needed social support about that. Literature review shows that the current study findings are in parallel with the findings of previous studies in the literature.

Another finding of the current study shows that there was a statistically significant negative relationship between parents' level of perceived social support and level of rumination about interpersonal offenses. Literature review shows that rumination about interpersonal offenses is negatively related to depression, anxiety and stress [19]. Considering the studies showing that depression, anxiety and stress are negatively related to social support [28]-[26], it seems possible to state that the negative relationship between rumination about interpersonal offenses and perceived social support is indirectly in parallel with the current study findings.

As a parent having a kid with special needs, having a high level of perceived social support is a factor that enhances the life quality. Hence, experts should organize some activities or trainings within the body of universities or health institutions in order to increase the level of perceived social support of parents having kids with special needs. Researchers are recommended to conduct further studies with different sample groups to investigate the effects of various variables such as gender, perceived level of income, job status, educational background on perceived level of social support.

REFERENCES

- [1] Y. A.Varış and M. M. Hekim"Özel gereksinimli bireyler ve müzik eğitimi." *Gazi Eğitim Bilimleri Dergisi* vol. 3(3), pp. 29-42, 2017.
- [2] Amerikan Psikiyatri Birliği. *Ruhsal Bozuklukların Tanısal ve Sayımsal El Kitabı, Beşinci Baskı (DSM-5)* (Çev. ed.: E Köroğlu) Hekimler Yayın Birliği, Ankara, 2013
- [3] Ö, Ersoy, and N. Çürük. "Özel gereksinimli çocuğa sahip annelerde sosyal desteğin önemi." *Sosyal Politika Çalışmaları Dergisi* vol. 17(17): pp. 104-110, 2009.

- [4] D.C. Lusting, and T. Akey. Adaptation in Families with Adult Children with Mental Retardation: Impact of Family Strengths an Appraisal. *Education and Training in Mental Retardation and Developmental*. Vol. 34 (3) pp: 260-270, 1999.
- [5] B.F. Meral, B. F. and A. Cavkaytar. "Çok boyutlu algılanan sosyal destek ölçeği'nin psikometrik özelliklerinin otizmlı çocuk aileleri üzerinden incelenmesi." *e-Uluslararası Eğitim Araştırmaları Dergisi* vol. 3(4): pp. 20-32.2013.
- [6] C.J. Dunst, C.M. Trivette and A. Cross (1986). Mediating Influences of Social Support: Personal, Family and Child Outcomes. *American Journal of Mental Deficiency*, vol. 90(4), pp. 403-417, 1986.
- [7] Y. Çakır and R.Palabıyık. Gençlerde Sosyal Destek, Çok Boyutlu Algılanan Sosyal Destek Ölçeğinin Güvenilirlik ve Geçerlilik Çalışması. *Kriz Dergisi*, vol. 5(1), pp. 15-24, 1997
<https://doi.org/10.1501/0000861>
- [8] E. Ünlüer, (2009). "2-6 Yaş Arası Otistik Çocuğa Sahip Annelerin Algıladıkları Sosyal Destek ve Umutsuzluk Düzeyleri Arasındaki İlişkinin İncelenmesi" Yayınlanmamış Yüksek Lisans Tezi. İstanbul: Marmara Üniversitesi, 2009.
- [9] H. Arkar, Ö. Sarı, H. Fidaner. Relationships between Quality of Life, Perceived Social Support, Social Network and Loneliness in a Turkish Sample. *Yeni Symposium*. Vol. 42 (1), pp. 20-27, 2004.
- [10] W.M. Juanita. "Social Support as a Mediator between Symptom Distress and Quality of Life in Women with Breast Cancer" *Journal of Obstetric, Gynecologic & Neonatal Nursing*; vol. 34(4), pp. 482-493, 2005.
<https://doi.org/10.1177/0884217505278310>
- [11] National Institute of Mental Health. (Şubat 2016). Depression. Retrieved
<https://www.nlm.nih.gov/health/topics/depression/index.shtml>
- [12] İ. V. Gülüm, and İ. Dağ. "Tekrarlayıcı Düşünme Ölçeği ve Bilişsel Esneklik Envanteri'nin Türkçeye uyarlanması geçerliliği ve güvenilirliği". *Anatolian Journal of Psychiatry*, vol. 13, pp. 216-223, 2012.
- [13] L.L. Martin and A. Tesser. *Some ruminative thoughts*. R. S. Wyer, (Ed.), *Advances in social cognition* (9. cilt) içinde (1-47). Mahwah, NJ: Lawrence Erlbaum, 1996.
- [14] N.G. Wade, D. L. Vogel, K. Y. H. Liao, and D.B. Goldman. "Measuring statespecific rumination: Development of the rumination about an interpersonal offense scale". *Journal of Counseling Psychology*, vol. 55(3), pp. 419-426, 2008.
<https://doi.org/10.1037/0022-0167.55.3.419>
- [15] N. Karasar, *Bilimsel Araştırma Yöntemi*. 17. Baskı. Ankara: Nobel yayın dağıtım, 81-83, 2005.
- [16] G.D. Zimet, N.W. Dahlem, S.G. Zimet, and et all The Multidimensional Scale of Perceived Social Support. *J Pers Assess*, vol. 52, pp. 30-41, 1988.
https://doi.org/10.1207/s15327752jpa5201_2
- [17] D. Eker, H. Arkar, H. Yıldız. "Çok Boyutlu Algılanan Sosyal Destek Ölçeği'nin Gözden Geçirilmiş Formunun Faktör Yapısı, Geçerlik ve Güvenirliği", *Türk Psikiyatri Dergisi*, vol. 12(1), pp.17-25, 2001.
- [18] H. Sarçam "The psychometric properties of the Turkish version of Depression Anxiety Stress Scale-21 (DASS-21) in health control and clinical samples." *Journal of Cognitive-Behavioral Psychotherapy and Research*, vol. 7(1), pp. 19-30, 2018.
<https://doi.org/10.5455/JCBPR.274847>
- [19] T. Oral, C. Arslan. "Kişilerarası Hataya İlişkin Ruminasyon Ölçeği'ni Türkçeye Uyarlama Çalışması." *Bilişsel Davranışçı Psikoterapi ve Araştırmalar Dergisi*, vol. 6(3), pp. 101- 107, 2017.
- [20] K.S. Kannan and K. Manoj. Outlier detection in multivariate data. *Applied Mathematical Sciences*. Vol. 47, pp. 2317-2324, 2015.
<https://doi.org/10.12988/ams.2015.53213>
- [21] J.F. Hair and et al. "Multivariate Data Analysis: Pearson Education." Upper Saddle River, New Jersey, 2010.
- [22] Ş. Büyükköztürk. *Sosyal Bilimler İçin Veri Analizi El Kitabı*. Ankara: Pegem Akademi. 2018.
<https://doi.org/10.14527/9789756802748>
- [23] Z. Kurtbeyoğlu and V.Y. Demirtaş. "Özel öğrenme güçlüğü tanılı çocuğu olan anne-babaların algılanan sosyal destek ve depresyon düzeyleri." *Dokuz Eylül Üniversitesi Buca Eğitim Fakültesi Dergisi* vol. (50), pp. 228-242, 2020.
- [24] J. Bromley, D. J. Hare, K. Davison and E. Emerson. "Mothers supporting children with autistic spectrum disorders: Social support, mental health status and satisfaction with services." *Autism* vol. 8(4), pp. 409-423, 2004.
<https://doi.org/10.1177/1362361304047224>
- [25] G. Kaymakçı, M. E. Şener, B. Doğrukök, "Özel Yetenekli ve Zihinsel Yetersizliği Olan Çocuğa Sahip Ailelerin Sosyal Destek Algılarının Farklı Değişkenler Açısından İncelenmesi." *International Journal of Social Science Research* vol. 11(2), pp. 135-156, 2022.
- [26] M. Şentürk, and G. Varol Saraçoğlu. "Eğitilebilir zihinsel, bedensel engelli çocuğu olan annelerle sağlıklı çocuğa sahip annelerin aileden algıladıkları sosyal destek ve depresyon düzeylerinin karşılaştırılması." *IJBCM International Journal of Basic and dClinical Medicine. Uluslararası Temel ve Klinik Tıp Dergisi*. Vol. 1(1), pp. 40-49, 2013.
- [27] Ş. Bilgin. "Ağır ve orta düzeyde zihinsel yetersizliği olan çocukların anne -babalarının algıladıkları sosyal destek kaygı ve depresyon düzeylerinin incelenmesi." (Yayımlanmamış Yüksek Lisans Tezi), Uludağ Üniversitesi Sağlık Bilimleri Enstitüsü Tıp-Psikiyatri (Klinik Psikoloji-Erişkin) Anabilim Dalı. 2012.
- [28] S. Tunç and O. Özkardaş. "Otizmlı Çocuğu Olan Annelerde Algılanan Sosyal Desteğin Anksiyete ve Ebeveyn Tükenmişliği Üzerindeki Etkisi." *Social Sciences Research Journal*, vol. 9 (4), pp. 247-253, 2020.
- [29] Y. Coşkun and G. Akkaş. "Engelli çocuğu olan annelerin sürekli kaygı düzeyleri ile sosyal destek algıları arasındaki ilişki." *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*. Vol. 10(1), pp.213-227, 2009.
- [30] U. Özkubat, S. Özdemir, Ö.G. Selimoğlu, and G. Töret. "Otizme yatkınlık: Otizmlı çocuğa sahip ebeveynlerin sosyal destek algılarına ilişkin görüşleri." *Ondokuz Mayıs University Journal of Education Faculty* 33(1): 323-348, 2014.
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