

26. BÖLÜM

Çocuklarda Dürtüsellik ve Dürtü Kontrol Bozuklukları

Gamze YAPÇA KAYPAKLI¹

Dürtüsellik, günlük yaşamda hem yararlı hem de zararlı olabilecek insan davranışının bir özelliğidir. Örneğin, dürtüyle hareket etmek önemli bir fırsatı değerlendirmemize olanak sağlayabileceği gibi, ileride pişmanlık duyacağımız feci bir karar vermemize de sebep olabilir. Dürtüsellikte, yetersiz inhibitör kontrol, ödüllerdeki gecikmeye tahammülsüzlük, önceden düşünme ve planlamadaki yetersizliklerden ve dikkat eksikliğinden kaynaklanan hızlı karar verme gibi temalar göze çarpar. Dürtüsellik, kötü tasarlanmış, erken ifade edilmiş, aşırı derecede riskli veya duruma uygun olmayan ve genellikle istenmeyen sonuçlara yol açan bir dizi eylemi kapsar ve dikkat eksikliği hiperaktivite bozukluğu dahil olmak üzere birçok psikiyatrik hastalığın bir bileşenidir (Winstanley ve ark., 2006).

“Yıkıcı Bozukluklar, Dürtü Denetimi ve Davranım Bozuklukları” bölümü ilk kez DSM-5’te ayrı bir başlık olarak ele alınmıştır. “Yıkıcı Bozukluklar, Dürtü Denetimi ve Davranım Bozuklukları”; daha önce “Genellikle İlk kez Bebeklik, Çocukluk veya Ergenlikte Tanı Konulan Bozukluklar” bölümünde yer alan bozukluklar (karşıt olma karşıt gelme bozukluğu, davranım bozukluğu gibi) ve “Başka türlü sınıflandırılmayan Dürtü-Kontrol Bozuklukları” bölümünde yer alan bozuklukları (aralıklı patlayıcı bozukluk, piromani ve kleptomani) içerir. Bu bozuklukların hepsi, duygusal ve davranışsal özdenetim sorunları ile karakterizedir. Ayrıca, “Nörogelişimsel Bozukluklar” başlığı altında yer alan Dikkat Eksikliği Hiperaktivite Bozukluğu (DEHB) sıklıkla bu bölümdeki bozukluklarla birlikte görülür ve tıpkı bu bozukluklar gibi duygusal

¹ Uzm. Dr., Hatay Antakya Eğitim ve Araştırma Hastanesi, Çocuk Psikiyatrisi Kliniği, gamzeyapca@gmail.com

ene ve ark., 2002; Freitag ve ark., 2012; APA, 2013). DEHB ile DB birlikte görüldüğü durumlarda klinik ağırlaşmaktadır. DB'li bireylerde madde kullanım bozukluğu öyküsünde artış ve daha kötü gidişat bildirilmektedir (Erskine ve ark., 2016).

Süreç

Gidişattaki en önemli belirleyicilerden biri başlangıç yaşıdır. Çocukluk çağıında başlayan tip, ergenlik çağıında başlayan tipe göre daha olumsuz bir gidişata sahiptir. Erken başlayan tip yaşamın ileriki yıllarında Antisosyal Kişilik Bozukluğu ve Madde Kullanım Bozukluğu ile ilişkilidir. Bu bireylerin yaşamın ileriki yıllarında daha sık suça karıştığı, daha sık cinsel yolla bulaşan hastalıkları taşıdığı, eğitimlerini tamamlayamadığı ve toplumsal düzeni bozduğu görülmüştür (APA, 2013; Erskine ve ark., 2016).

Tedavi

Bu bireylerdeki en büyük sıkıntı başkalarının haklarını ihlal etmedir, dolayısıyla ana hedeflerden biri suç davranışlarını en aza indirmeyi hedeflemektir (Erskine ve ark., 2016; Fairchild ve ark., 2019). NICE klavuzu aile ve çocuk temelli psikososyal müdahaleleri ana tedavi yöntemi olarak kabul etmektedir (NICE, 2013). DB olgularında ilk seçenek olarak risperidon, DEHB eşlik eden vakalarda ise psikostimülan önerilmektedir (Pisano ve Masi, 2020).

SONUÇ

Dürtü kontrol mekanizmasında bozulma ile giden ve çocukluk çağıında sık görülen bozukluklar olan Dikkat Eksikliği Hiperaktivite Bozukluğu, Karşıt Olma Karşıt Gelme Bozuk-

luğu ve Davranım Bozukluğu bu bölümde ele alınmıştır. Bu bozuklukların etyolojisi tam aydınlatılmamış olmakla birlikte, altta yatan multifaktöryel bir geçiş olduğu bilinmektedir. Bu bozukluğa sahip olan çocuklarda, yetersiz inhibitör kontrol, ödüllerdeki gecikmeye tahammülsüzlük, önceden düşünme ve planlamada yetersizlik gibi dürtüsel temalar göze çarpar. Özellikle dürtüsellik alt belirtilerinin olduğu çocuk ve ergenlerde, hem çocuk hem de aile ile işbirliği içerisinde hareket edilmesi ve biyopsikososyal zeminde bütüncül yaklaşım sergilenmesi önerilmektedir.

KAYNAKLAR

- Alvarez, H. K., & Ollendick, T. H. (2003). Individual and psychosocial risk factors. *Conduct and oppositional defiant disorders: Epidemiology, risk factors, and treatment*, 97-116.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (DSM-5®)*. American Psychiatric Pub.
- Angold, A., Costello, E. J., & Erkanli, A. (1999). Comorbidity. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 40(1), 57-87.
- Arnold, L. E., Hodgkins, P., Caci, H., Kahle, J., & Young, S. (2015). Effect of treatment modality on long-term outcomes in attention-deficit/hyperactivity disorder: a systematic review. *PloS One*, 10(2), e0116407. <https://doi.org/10.1371/journal.pone.0116407>
- Arnold, L. E., Hodgkins, P., Kahle, J., Madhoo, M., & Kewley, G. (2020). Long-Term Outcomes of ADHD: Academic Achievement and Performance. *Journal of attention disorders*, 24(1), 73-85. <https://doi.org/10.1177/1087054714566076>
- Arnsten, A. F., & Pliszka, S. R. (2011). Catecholamine influences on prefrontal cortical function: relevance to treatment of attention deficit/hyperactivity disorder and related disorders. *Pharmacology, biochemistry, and behavior*, 99(2), 211-216. <https://doi.org/10.1016/j.pbb.2011.01.020>

- Association American Psychiatric. (1968). *Diagnostic and statistical manual of mental disorders*. American Psychiatric Publishing.
- Association American Psychiatric. (1987). *Diagnostic and statistical manual of mental disorders*. American Psychiatric Publishing.
- Association American Psychiatric. (1994). *Diagnostic and statistical manual of mental disorders*. American Psychiatric Publishing.
- Atkinson, M., & Hollis, C. (2010). NICE guideline: attention deficit hyperactivity disorder. *Archives of disease in childhood. Education and practice edition*, 95(1), 24–27. <https://doi.org/10.1136/adc.2009.175943>
- Barkley R. A. (1997). Behavioral inhibition, sustained attention, and executive functions: constructing a unifying theory of ADHD. *Psychological bulletin*, 121(1), 65–94. <https://doi.org/10.1037/0033-2909.121.1.65>
- Barkley R. A. (2002). Psychosocial treatments for attention-deficit/hyperactivity disorder in children. *The Journal of Clinical Psychiatry*, 63 Suppl 12, 36–43.
- Barkley R.A. (Ed.). (2014). *Attention-deficit hyperactivity disorder. A handbook for diagnosis and treatment*. Guilford Publications.
- Bernhard, A., Martinelli, A., Ackermann, K., Saure, D., & Freitag, C. M. (2018). Association of trauma, Posttraumatic Stress Disorder and Conduct Disorder: A systematic review and meta-analysis. *Neuroscience and biobehavioral reviews*, 91, 153–169. <https://doi.org/10.1016/j.neubiorev.2016.12.019>
- Biederman J. (2005). Attention-deficit/hyperactivity disorder: a selective overview. *Biological Psychiatry*, 57(11), 1215–1220. <https://doi.org/10.1016/j.biopsych.2004.10.020>
- Biederman, J., Ball, S. W., Monuteaux, M. C., Mick, E., Spencer, T. J., McCREARY, M., Cote, M., & Faraone, S. V. (2008). New insights into the comorbidity between ADHD and major depression in adolescent and young adult females. *Journal of the American Academy of Child and Adolescent Psychiatry*, 47(4), 426–434. <https://doi.org/10.1097/CHI.0b013e31816429d3>
- Biederman, J., Mick, E., & Faraone, S. V. (2000). Age-dependent decline of symptoms of attention deficit hyperactivity disorder: impact of remission definition and symptom type. *The American Journal of Psychiatry*, 157(5), 816–818. <https://doi.org/10.1176/appi.ajp.157.5.816>
- Blair R. J. (2007). The amygdala and ventromedial prefrontal cortex in morality and psychopathy. *Trends in Cognitive Sciences*, 11(9), 387–392. <https://doi.org/10.1016/j.tics.2007.07.003>
- Brown, T. E. (2000). *Attention-deficit disorders and comorbidities in children, adolescents, and adults*. American Psychiatric Publishing, Inc..
- Burke, J. D., Loeber, R., & Birmaher, B. (2002). Oppositional defiant disorder and conduct disorder: a review of the past 10 years, part II. *Journal of the American Academy of Child and Adolescent Psychiatry*, 41(11), 1275–1293. <https://doi.org/10.1097/00004583-200211000-00009>
- Bymaster, F. P., Katner, J. S., Nelson, D. L., Hemrick-Luecke, S. K., Threlkeld, P. G., Heiligenstein, J. H., Morin, S. M., Gehlert, D. R., & Perry, K. W. (2002). Atomoxetine increases extracellular levels of norepinephrine and dopamine in prefrontal cortex of rat: a potential mechanism for efficacy in attention deficit/hyperactivity disorder. *Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology*, 27(5), 699–711. [https://doi.org/10.1016/S0893-133X\(02\)00346-9](https://doi.org/10.1016/S0893-133X(02)00346-9)
- Canadian Attention Deficit Disorder Resource Alliance (2011). *Canadian ADHD Practice Guideline (CADDRA)*, 3.baski.
- Canino, G., Polanczyk, G., Bauermeister, J. J., Rohde, L. A., & Frick, P. J. (2010). Does the prevalence of CD and ODD vary across cultures?. *Social Psychiatry and Psychiatric Epidemiology*, 45(7), 695–704. <https://doi.org/10.1007/s00127-010-0242-y>
- Castellanos, F. X., & Acosta, M. T. (2004). Neuroanatomía del trastorno por déficit de atención con hiperactividad [The neuroanatomy of attention deficit/hyperactivity disorder]. *Revista de neurología*, 38 Suppl 1, S131–S136.

- CLEMENTS, S. D., & PETERS, J. E. (1962). Minimal brain dysfunctions in the school-age child. Diagnosis and treatment. *Archives of General Psychiatry*, 6, 185–197. <https://doi.org/10.1001/archpsyc.1962.01710210001001>
- Conners, C. K., Sitarenios, G., Parker, J. D., & Epstein, J. N. (1998). Revision and restandardization of the Conners Teacher Rating Scale (CTRS-R): factor structure, reliability, and criterion validity. *Journal of Abnormal Child Psychology*, 26(4), 279–291. <https://doi.org/10.1023/a:1022606501530>
- Conners, C. K., Sitarenios, G., Parker, J. D., & Epstein, J. N. (1998). The revised Conners' Parent Rating Scale (CPRS-R): factor structure, reliability, and criterion validity. *Journal of Abnormal Child Psychology*, 26(4), 257–268. <https://doi.org/10.1023/a:1022602400621>
- Conners, C. K., Wells, K. C., Parker, J. D., Sitarenios, G., Diamond, J. M., & Powell, J. W. (1997). A new self-report scale for assessment of adolescent psychopathology: factor structure, reliability, validity, and diagnostic sensitivity. *Journal of Abnormal Child Psychology*, 25(6), 487–497. <https://doi.org/10.1023/a:1022637815797>
- Connor, D. F., Steeber, J., & McBurnett, K. (2010). A review of attention-deficit/hyperactivity disorder complicated by symptoms of oppositional defiant disorder or conduct disorder. *Journal of Developmental & Behavioral Pediatrics*, 31(5), 427–440.
- Cyr, M., & Brown, C. S. (1998). Current drug therapy recommendations for the treatment of attention deficit hyperactivity disorder. *Drugs*, 56(2), 215–223. <https://doi.org/10.2165/00003495-199856020-00005>
- Doshi, J. A., Hodgkins, P., Kahle, J., Sikirica, V., Cangelosi, M. J., Setyawan, J., Erder, M. H., & Neumann, P. J. (2012). Economic impact of childhood and adult attention-deficit/hyperactivity disorder in the United States. *Journal of the American Academy of Child and Adolescent Psychiatry*, 51(10), 990–1002.e2. <https://doi.org/10.1016/j.jaac.2012.07.008>
- Epstein, J. N., Erkanli, A., Conners, C. K., Klaric, J., Costello, J. E., & Angold, A. (2003). Relations between Continuous Performance Test performance measures and ADHD behaviors. *Journal of Abnormal Child Psychology*, 31(5), 543–554. <https://doi.org/10.1023/a:1025405216339>
- Ercan E.S., Kutlu A., Durak S. ve ark. (2011). The evaluation of treatment alternatives in children with disruptive behavior disorders: 18 months follow up study. *Çocuk ve Gençlik Ruh Sağlığı Dergisi-Turkish Journal of Child and Adolescent Mental Health*, 18(1), 21–33.
- Ercan E.S., Mukaddes N.M., Yazgan Y. ve ark. (2016). Çocuk ve Ergen Ruh Sağlığı ve Hastalıkları Psikiyatrisi Temel Kitabı. 2.baskı, Ankara: Hyb.
- Ercan, E. S. (2010). Dikkat eksikliği hiperaktivite bozukluğunda epidemiyolojik veriler. *Türkiye Klinikleri Journal of Pediatric Sciences*, 6(2), 1–5.
- Ercan, E. S., Polanczyk, G., Akyol Ardıc, U., Yuce, D., Karacetin, G., Tufan, A. E., Tural, U., Aksu, H., Aktepe, E., Rodopman Arman, A., Başgöl, S., Bilac, O., Coşkun, M., Celik, G. G., Karakoc Demirkaya, S., Dursun, B. O., Durukan, İ., Fidan, T., Perdahlı Fiş, N., Gençoğlan, S., ... Yıldız, N. (2019). The prevalence of childhood psychopathology in Turkey: a cross-sectional multicenter nationwide study (EPICPAT-T). *Nordic journal of psychiatry*, 73(2), 132–140. <https://doi.org/10.1080/08039488.2019.1574892>
- Erskine, H. E., Norman, R. E., Ferrari, A. J., Chan, G. C., Copeland, W. E., Whiteford, H. A., & Scott, J. G. (2016). Long-Term Outcomes of Attention-Deficit/Hyperactivity Disorder and Conduct Disorder: A Systematic Review and Meta-Analysis. *Journal of the American Academy of Child and Adolescent Psychiatry*, 55(10), 841–850. <https://doi.org/10.1016/j.jaac.2016.06.016>
- Erşan, E. E., Doğan, O., Doğan, S., & Sümer, H. (2004). The distribution of symptoms of attention-deficit/hyperactivity disorder and oppositional defiant disorder in school age children in Turkey. *European Child & Adolescent Psychiatry*, 13(6), 354–361. <https://doi.org/10.1007/s00787-004-0410-2>
- Fairchild, G., Hawes, D. J., Frick, P. J., Copeland, W. E., Odgers, C. L., Franke, B., Freitag, C. M., & De Brito, S. A. (2019). Conduct disorder. *Nature re-*

- views. *Disease primers*, 5(1), 1-25. <https://doi.org/10.1038/s41572-019-0095-y>
- Faraone, S. V., & Biederman, J. (1998). Neurobiology of attention-deficit hyperactivity disorder. *Biological Psychiatry*, 44(10), 951-958. [https://doi.org/10.1016/s0006-3223\(98\)00240-6](https://doi.org/10.1016/s0006-3223(98)00240-6)
- Faraone, S. V., Biederman, J., & Mick, E. (2006). The age-dependent decline of attention deficit hyperactivity disorder: a meta-analysis of follow-up studies. *Psychological Medicine*, 36(2), 159-165. <https://doi.org/10.1017/S003329170500471X>
- Faraone, S. V., Perlis, R. H., Doyle, A. E., Smoller, J. W., Goralnick, J. J., Holmgren, M. A., & Sklar, P. (2005). Molecular genetics of attention-deficit/hyperactivity disorder. *Biological Psychiatry*, 57(11), 1313-1323. <https://doi.org/10.1016/j.biopsych.2004.11.024>
- Freitag, C. M., Hänig, S., Schneider, A., Seitz, C., Palmason, H., Retz, W., & Meyer, J. (2012). Biological and psychosocial environmental risk factors influence symptom severity and psychiatric comorbidity in children with ADHD. *Journal of neural transmission (Vienna, Austria : 1996)*, 119(1), 81-94. <https://doi.org/10.1007/s00702-011-0659-9>
- Freitag, C. M., Hänig, S., Schneider, A., Seitz, C., Palmason, H., Retz, W., & Meyer, J. (2012). Biological and psychosocial environmental risk factors influence symptom severity and psychiatric comorbidity in children with ADHD. *Journal of neural transmission (Vienna, Austria : 1996)*, 119(1), 81-94. <https://doi.org/10.1007/s00702-011-0659-9>
- Galéra, C., Côté, S. M., Bouvard, M. P., Pingault, J. B., Melchior, M., Michel, G., Boivin, M., & Tremblay, R. E. (2011). Early risk factors for hyperactivity-impulsivity and inattention trajectories from age 17 months to 8 years. *Archives of General Psychiatry*, 68(12), 1267-1275. <https://doi.org/10.1001/archgenpsychiatry.2011.138>
- Gillberg, C. (2014). *ADHD and its many associated problems*. Oxford University Press.
- Golden, C. J., & Freshwater, S. M. (1978). Stroop color and word test.
- Greenberg, M. T., Speltz, M. L., & Deklyen, M. (1993). The role of attachment in the early development of disruptive behavior problems. *Development and Psychopathology*, 5, 191-191.
- Greene, R. W., Biederman, J., Zerwas, S., Monuteaux, M. C., Goring, J. C., & Faraone, S. V. (2002). Psychiatric comorbidity, family dysfunction, and social impairment in referred youth with oppositional defiant disorder. *The American Journal of Psychiatry*, 159(7), 1214-1224. <https://doi.org/10.1176/appi.ajp.159.7.1214>
- Hart, H., Radua, J., Mataix-Cols, D., & Rubia, K. (2012). Meta-analysis of fMRI studies of timing in attention-deficit hyperactivity disorder (ADHD). *Neuroscience and biobehavioral reviews*, 36(10), 2248-2256. <https://doi.org/10.1016/j.neubiorev.2012.08.003>
- Hartman, C. A., Willcutt, E. G., Rhee, S. H., & Pennington, B. F. (2004). The relation between sluggish cognitive tempo and DSM-IV ADHD. *Journal of Abnormal Child Psychology*, 32(5), 491-503. <https://doi.org/10.1023/b:jacp.0000037779.85211.29>
- Herman, K. C., Lambert, S. F., Ialongo, N. S., & Ost-rander, R. (2007). Academic pathways between attention problems and depressive symptoms among urban African American children. *Journal of Abnormal Child Psychology*, 35(2), 265-274. <https://doi.org/10.1007/s10802-006-9083-2>
- Hohman, L. B. (1922). Post-encephalitic behavior disorders in children. *Johns Hopkins Hospt Bull*, 33, 372-375.
- Jensen, C. M., & Steinhausen, H. C. (2015). Comorbid mental disorders in children and adolescents with attention-deficit/hyperactivity disorder in a large nationwide study. *Attention deficit and hyperactivity disorders*, 7(1), 27-38. <https://doi.org/10.1007/s12402-014-0142-1>
- Jonson-Reid, M., Presnall, N., Drake, B., Fox, L., Bierut, L., Reich, W., Kane, P., Todd, R. D., & Constantino, J. N. (2010). Effects of child maltreatment and inherited liability on antisocial development: an official records study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 49(4), 321-431.

- Kesner, R. P., & Churchwell, J. C. (2011). An analysis of rat prefrontal cortex in mediating executive function. *Neurobiology of learning and memory*, *96*(3), 417–431. <https://doi.org/10.1016/j.nlm.2011.07.002>
- Klein, R. G., Mannuzza, S., Olazagasti, M. A., Roizen, E., Hutchison, J. A., Lashua, E. C., & Castellanos, F. X. (2012). Clinical and functional outcome of childhood attention-deficit/hyperactivity disorder 33 years later. *Archives of General Psychiatry*, *69*(12), 1295–1303. <https://doi.org/10.1001/archgenpsychiatry.2012.271>
- Kousha, M., Shahrivar, Z., & Alaghband-Rad, J. (2012). Substance use disorder and ADHD: is ADHD a particularly “specific” risk factor?. *Journal of attention disorders*, *16*(4), 325–332. <https://doi.org/10.1177/1087054710387265>
- Kratochvil, C. J., Milton, D. R., Vaughan, B. S., & Greenhill, L. L. (2008). Acute atomoxetine treatment of younger and older children with ADHD: a meta-analysis of tolerability and efficacy. *Child and adolescent psychiatry and mental health*, *2*(1), 25. <https://doi.org/10.1186/1753-2000-2-25>
- Kuntsi, J., Oosterlaan, J., & Stevenson, J. (2001). Psychological mechanisms in hyperactivity: I. Response inhibition deficit, working memory impairment, delay aversion, or something else?. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, *42*(2), 199–210.
- Lahey, B. B., Miller, T. L., Gordon, R. A., & Riley, A. W. (1999). Developmental epidemiology of the disruptive behavior disorders. In *Handbook of disruptive behavior disorders* (pp. 23–48). Springer, Boston, MA.
- Laufer, M. W., Denhoff, E., & Solomons, G. (2011). Hyperkinetic impulse disorder in children’s behavior problems. *Journal of attention disorders*, *15*(8), 620–625. <https://doi.org/10.1177/1087054711413043>
- Lin, Y. J., Lai, M. C., & Gau, S. S. (2012). Youths with ADHD with and without tic disorders: comorbid psychopathology, executive function and social adjustment. *Research in developmental disabilities*, *33*(3), 951–963. <https://doi.org/10.1016/j.ridd.2012.01.001>
- Lochman, J. E., Powell, N. P., Boxmeyer, C. L., & Jimenez-Camargo, L. (2011). Cognitive-behavioral therapy for externalizing disorders in children and adolescents. *Child and adolescent psychiatric clinics of North America*, *20*(2), 305–318. <https://doi.org/10.1016/j.chc.2011.01.005>
- Loeber, R., Burke, J. D., Lahey, B. B., Winters, A., & Zera, M. (2000). Oppositional defiant and conduct disorder: a review of the past 10 years, part I. *Journal of the American Academy of Child and Adolescent Psychiatry*, *39*(12), 1468–1484. <https://doi.org/10.1097/00004583-200012000-00007>
- Lou H. C. (1996). Etiology and pathogenesis of attention-deficit hyperactivity disorder (ADHD): significance of prematurity and perinatal hypoxic-haemodynamic encephalopathy. *Acta paediatrica (Oslo, Norway : 1992)*, *85* (11), 1266–1271. <https://doi.org/10.1111/j.1651-2227.1996.tb13909.x>
- March, J. S., Swanson, J. M., Arnold, L. E., Hoza, B., Conners, C. K., Hinshaw, S. P., Hechtman, L., Kraemer, H. C., Greenhill, L. L., Abikoff, H. B., Elliott, L. G., Jensen, P. S., Newcorn, J. H., Vitiello, B., Severe, J., Wells, K. C., & Pelham, W. E. (2000). Anxiety as a predictor and outcome variable in the multimodal treatment study of children with ADHD (MTA). *Journal of Abnormal Child Psychology*, *28*(6), 527–541. <https://doi.org/10.1023/a:1005179014321>
- Masi, G., Perugi, G., Toni, C., Millepiedi, S., Mucci, M., Bertini, N., & Pfanner, C. (2006). Attention-deficit hyperactivity disorder -- bipolar comorbidity in children and adolescents. *Bipolar Disorders*, *8*(4), 373–381. <https://doi.org/10.1111/j.1399-5618.2006.00342.x>
- McKinney, C., & Renk, K. (2007). Emerging research and theory in the etiology of oppositional defiant disorder: Current concerns and future directions. *International journal of behavioral consultation and therapy*, *3*(3), 349.
- McLaughlin, K. A., Sheridan, M. A., Winter, W., Fox, N. A., Zeanah, C. H., & Nelson, C. A. (2014). Widespread reductions in cortical thickness following severe early-life deprivation: a neurodevelopmental pathway to attention-deficit/

- hyperactivity disorder. *Biological Psychiatry*, 76(8), 629–638. <https://doi.org/10.1016/j.biopsych.2013.08.016>
- Mukaddes N.M. (2000). Dikkat Eksikliği Hiperaktivite Bozukluğu. In:Çocuk ve Ergen Psikiyatrisi i.Ü. İstanbul Tıp Fakültesi Temel ve Klinik Bilimler Ders Kitapları. Polvan Ö. (Ed.), İstanbul: Nobel Kitabevleri, 81-88.
- Mukaddes, N. M. (2015). *Yaşam boyu dikkat eksikliği hiperaktivite bozukluğu ve eşlik eden durumlar*. Nobel Tıp.
- National Collaborating Centre for Mental Health (UK), & Social Care Institute for Excellence (UK). (2013). *Antisocial Behaviour and Conduct Disorders in Children and Young People: Recognition, Intervention and Management*. British Psychological Society.
- Nock, M.K., Kazdin, A. E., Hiripi, E., & Kessler, R. C. (2007). Lifetime prevalence, correlates, and persistence of oppositional defiant disorder: results from the National Comorbidity Survey Replication. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 48(7), 703–713. <https://doi.org/10.1111/j.1469-7610.2007.01733.x>
- Noordermeer, S. D., Luman, M., & Oosterlaan, J. (2016). A Systematic Review and Meta-analysis of Neuroimaging in Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD) Taking Attention-Deficit Hyperactivity Disorder (ADHD) Into Account. *Neuropsychology review*, 26(1), 44–72. <https://doi.org/10.1007/s11065-015-9315-8>
- Norberg, J. (2010). *The historical foundation of conduct disorders: historical context, theoretical explanations, and interventions* (Master's thesis).
- Overtoom, C. C., Kenemans, J. L., Verbaten, M. N., Kemner, C., van der Molen, M. W., van Engeland, H., Buitelaar, J. K., & Koelega, H. S. (2002). Inhibition in children with attention-deficit/hyperactivity disorder: a psychophysiological study of the stop task. *Biological Psychiatry*, 51(8), 668–676. [https://doi.org/10.1016/s0006-3223\(01\)01290-2](https://doi.org/10.1016/s0006-3223(01)01290-2)
- Öncü B. (2012). Dikkat Eksikliği/Hiperaktivite Bozukluğunun Tarihçesi. *Türkiye Klinikleri Psikiyatri-Özel Konular*, 5(1), 1-7.
- Pisano, S., & Masi, G. (2020). Recommendations for the pharmacological management of irritability and aggression in conduct disorder patients. *Expert opinion on pharmacotherapy*, 21(1), 5–7. <https://doi.org/10.1080/14656566.2019.1685498>
- Pliszka, S., & AACAP Work Group on Quality Issues (2007). Practice parameter for the assessment and treatment of children and adolescents with attention-deficit/hyperactivity disorder. *Journal of the American Academy of Child and Adolescent Psychiatry*, 46(7), 894–921. <https://doi.org/10.1097/chi.0b013e318054e724>
- Polanczyk, G. V., Salum, G. A., Sugaya, L. S., Caye, A., & Rohde, L. A. (2015). Annual research review: A meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 56(3), 345–365. <https://doi.org/10.1111/jcpp.12381>
- Polanczyk, G., de Lima, M. S., Horta, B. L., Biederman, J., & Rohde, L. A. (2007). The worldwide prevalence of ADHD: a systematic review and metaregression analysis. *The American Journal of Psychiatry*, 164(6), 942–948. <https://doi.org/10.1176/ajp.2007.164.6.942>
- Polderman, T. J., Benyamin, B., de Leeuw, C. A., Sullivan, P. F., van Bochoven, A., Visscher, P. M., & Posthuma, D. (2015). Meta-analysis of the heritability of human traits based on fifty years of twin studies. *Nature genetics*, 47(7), 702–709. <https://doi.org/10.1038/ng.3285>
- Pringsheim, T., Hirsch, L., Gardner, D., & Gorman, D. A. (2015). The pharmacological management of oppositional behaviour, conduct problems, and aggression in children and adolescents with attention-deficit hyperactivity disorder, oppositional defiant disorder, and conduct disorder: a systematic review and meta-analysis. Part 1: psychostimulants, alpha-2 agonists, and atomoxetine. *Canadian journal of psychiatry. Revue canadienne de psychiatrie*, 60(2), 42–51. <https://doi.org/10.1177/070674371506000202>

- Pringsheim, T., Hirsch, L., Gardner, D., & Gorman, D. A. (2015). The pharmacological management of oppositional behaviour, conduct problems, and aggression in children and adolescents with attention-deficit hyperactivity disorder, oppositional defiant disorder, and conduct disorder: a systematic review and meta-analysis. Part 2: antipsychotics and traditional mood stabilizers. *Canadian journal of psychiatry. Revue canadienne de psychiatrie*, *60*(2), 52–61. <https://doi.org/10.1177/070674371506000203>
- Ramsay J. R. (2007). Current status of cognitive-behavioral therapy as a psychosocial treatment for adult attention-deficit/hyperactivity disorder. *Current Psychiatry Reports*, *9*(5), 427–433. <https://doi.org/10.1007/s11920-007-0056-0>
- Rhee, S. H., & Waldman, I. D. (2002). Genetic and environmental influences on antisocial behavior: a meta-analysis of twin and adoption studies. *Psychological bulletin*, *128*(3), 490–529.
- Ribas-Fitó, N., Torrent, M., Carrizo, D., Júlvez, J., Grimalt, J. O., & Sunyer, J. (2007). Exposure to hexachlorobenzene during pregnancy and children's social behavior at 4 years of age. *Environmental health perspectives*, *115*(3), 447–450. <https://doi.org/10.1289/ehp.9314>
- Rogers, J. C., & De Brito, S. A. (2016). Cortical and Subcortical Gray Matter Volume in Youths With Conduct Problems: A Meta-analysis. *JAMA Psychiatry*, *73*(1), 64–72. <https://doi.org/10.1001/jamapsychiatry.2015.2423>
- Sagvolden, T., Johansen, E. B., Aase, H., & Russell, V. A. (2005). A dynamic developmental theory of attention-deficit/hyperactivity disorder (ADHD) predominantly hyperactive/impulsive and combined subtypes. *The Behavioral and brain sciences*, *28*(3), 397–468. <https://doi.org/10.1017/S0140525X05000075>
- Salatino-Oliveira, A., Genro, J. P., Guimarães, A. P., Chazan, R., Zeni, C., Schmitz, M., Polanczyk, G., Roman, T., Rohde, L. A., & Hutz, M. H. (2012). Catechol-O-methyltransferase Val(158)Met polymorphism is associated with disruptive behavior disorders among children and adolescents with ADHD. *Journal of neural transmission (Vienna, Austria : 1996)*, *119*(6), 729–733. <https://doi.org/10.1007/s00702-012-0766-2>
- Satterfield, J. H., & Schell, A. (1997). A prospective study of hyperactive boys with conduct problems and normal boys: adolescent and adult criminality. *Journal of the American Academy of Child and Adolescent Psychiatry*, *36*(12), 1726–1735. <https://doi.org/10.1097/00004583-199712000-00021>
- Schachar, R. J. (1986). Hyperkinetic syndrome: Historical development of the concept. *The overactive child*, 19–40.
- Schachar, R., Tannock, R., Marriott, M., & Logan, G. (1995). Deficient inhibitory control in attention deficit hyperactivity disorder. *Journal of Abnormal Child Psychology*, *23*(4), 411–437. <https://doi.org/10.1007/BF01447206>
- Schatz, D. B., & Rostain, A. L. (2006). ADHD with comorbid anxiety: a review of the current literature. *Journal of attention disorders*, *10*(2), 141–149. <https://doi.org/10.1177/1087054706286698>
- Sharp, S. I., McQuillin, A., & Gurling, H. M. (2009). Genetics of attention-deficit hyperactivity disorder (ADHD). *Neuropharmacology*, *57*(7–8), 590–600. <https://doi.org/10.1016/j.neuropharm.2009.08.011>
- Shaw, P., Eckstrand, K., Sharp, W., Blumenthal, J., Lerch, J. P., Greenstein, D., Clasen, L., Evans, A., Giedd, J., & Rapoport, J. L. (2007). Attention-deficit/hyperactivity disorder is characterized by a delay in cortical maturation. *Proceedings of the National Academy of Sciences of the United States of America*, *104*(49), 19649–19654. <https://doi.org/10.1073/pnas.0707741104>
- Shaw, P., Lerch, J., Greenstein, D., Sharp, W., Clasen, L., Evans, A., Giedd, J., Castellanos, F. X., & Rapoport, J. (2006). Longitudinal mapping of cortical thickness and clinical outcome in children and adolescents with attention-deficit/hyperactivity disorder. *Archives of General Psychiatry*, *63*(5), 540–549. <https://doi.org/10.1001/archpsyc.63.5.540>
- Slutske, W. S., Cronk, N. J., & Nabors-Oberg, R. E. (2003). Familial and genetic factors.
- Solanto, M. V., Abikoff, H., Sonuga-Barke, E., Scha-

- char, R., Logan, G. D., Wigal, T., Hechtman, L., Hinshaw, S., & Turkel, E. (2001). The ecological validity of delay aversion and response inhibition as measures of impulsivity in AD/HD: a supplement to the NIMH multimodal treatment study of AD/HD. *Journal of Abnormal Child Psychology*, 29(3), 215–228. <https://doi.org/10.1023/a:1010329714819>
- Spencer T. J. (2006). ADHD and comorbidity in childhood. *The Journal of Clinical Psychiatry*, 67 Suppl 8, 27–31.
- Spencer, T. J., Biederman, J., & Mick, E. (2007). Attention-deficit/hyperactivity disorder: diagnosis, lifespan, comorbidities, and neurobiology. *Journal of pediatric psychology*, 32(6), 631–642. <https://doi.org/10.1093/jpepsy/jsm005>
- Spetie L. & Attention-Deficit, A.E. (2007). Hyperactivity Disorder. *Lewis's Child and Adolescent Psychiatry: A Comprehensive Textbook*, 4, 430–49.
- Stahl, S. M., & Stahl, S. M. (2013). *Stahl's essential psychopharmacology: neuroscientific basis and practical applications*. Cambridge university press.
- Steiner, H., Remsing, L., & Work Group on Quality Issues (2007). Practice parameter for the assessment and treatment of children and adolescents with oppositional defiant disorder. *Journal of the American Academy of Child and Adolescent Psychiatry*, 46(1), 126–141. <https://doi.org/10.1097/01.chi.0000246060.62706.af>
- Still G.F. (1902). Some abnormal psychical conditions in children. *Lancet*.
- Şenol S. (2008). Dikkat Eksikliği Hiperaktivite Bozukluğu. In: *Çocuk ve Ergen Psikiyatrisi Temel Kitabı*. Çetin F.Ç. (Ed.) Ankara: Hyb. 293–311.
- Tannock, R., Ickowicz, A., & Schachar, R. (1995). Differential effects of methylphenidate on working memory in ADHD children with and without comorbid anxiety. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34(7), 886–896. <https://doi.org/10.1097/00004583-199507000-00012>
- Thorley G. (1984). Hyperkinetic syndrome of childhood: clinical characteristics. *The British journal of psychiatry : the journal of mental science*, 144, 16–24. <https://doi.org/10.1192/bjp.144.1.16>
- Torun, N. Y., Özşahin, A., & Sütçügil, L. (2009). Dikkat Eksikliği Hiperaktivite Bozukluğunun Yetişkinlikteki Yansımaları. *Klinik Psikiyatri Dergisi*, 12(1).
- Tung, I., & Lee, S. S. (2014). Negative parenting behavior and childhood oppositional defiant disorder: differential moderation by positive and negative peer regard. *Aggressive behavior*, 40(1), 79–90. <https://doi.org/10.1002/ab.21497>
- van de Glind, G., Konstenius, M., Koeter, M., van Emmerik-van Oortmerssen, K., Carpentier, P. J., Kaye, S., Degenhardt, L., Skutle, A., Franck, J., Bu, E. T., Moggi, F., Dom, G., Verspreet, S., Demetrovics, Z., Kapitány-Fövényi, M., Fatséas, M., Auriacombe, M., Schillinger, A., Møller, M., Johnson, B., ... van den Brink, W. (2014). Variability in the prevalence of adult ADHD in treatment seeking substance use disorder patients: results from an international multi-center study exploring DSM-IV and DSM-5 criteria. *Drug and alcohol dependence*, 134, 158–166. <https://doi.org/10.1016/j.drugalcdep.2013.09.026>
- Veroude, K., Zhang-James, Y., Fernández-Castillo, N., Bakker, M. J., Cormand, B., & Faraone, S. V. (2016). Genetics of aggressive behavior: An overview. *American Journal of Medical Genetics. Part B, Neuropsychiatric Genetics : the official publication of the International Society of Psychiatric Genetics*, 171B(1), 3–43. <https://doi.org/10.1002/ajmg.b.32364>
- Wilson, J. J., & Levin, F. R. (2005). Attention-deficit/hyperactivity disorder and early-onset substance use disorders. *Journal of child and adolescent psychopharmacology*, 15(5), 751–763. <https://doi.org/10.1089/cap.2005.15.751>
- Winstanley, C. A., Eagle, D. M., & Robbins, T. W. (2006). Behavioral models of impulsivity in relation to ADHD: translation between clinical and preclinical studies. *Clinical Psychology Review*, 26(4), 379–395. <https://doi.org/10.1016/j.cpr.2006.01.001>
- Woolfenden, S. R., Williams, K., & Peat, J. K. (2002). Family and parenting interventions for conduct disorder and delinquency: a meta-analysis of randomised controlled trials. *Archives of disease in childhood*, 86(4), 251–256. <https://doi.org/10.1136/ad.86.4.251>

- Yazici, K., & Yazici, A. E. (2010). Dürtüselligin Nöro-anatomik ve Nörokimyasal Temelleri/Neuro-anatomical and Neurochemical Basis of Impulsivity. *Psikiyatride Guncel Yaklasimlar*, 2(2), 254-280.
- Zappitelli, M., Pinto, T., & Grizenko, N. (2001). Pre-, peri-, and postnatal trauma in subjects with attention-deficit hyperactivity disorder. *Canadian journal of psychiatry. Revue canadienne de psychiatrie*, 46(6), 542-548. <https://doi.org/10.1177/070674370104600609>
- Zuddas, A., Marzocchi, G. M., Oosterlaan, J., Cavolina, P., Ancilletta, B., & Sergeant, J. (2006). Factor structure and cultural factors of disruptive behaviour disorders symptoms in Italian children. *European Psychiatry: the journal of the Association of European Psychiatrists*, 21(6), 410-418. <https://doi.org/10.1016/j.eurpsy.2005.08.001>