

Bölüm 6

İnternetin Sorunlu Kullanımı ve İnternet Oyun Oynaması Bozukluğu

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İnternetin Sorunlu Kullanımı

Tarih boyunca hiçbir icat; internet kadar hızlı yaygınlamamış ve yaşantımızda bu denli etkili olmamıştır. İnternetin kolay ulaşılabilir, kolay karşılanabilir ve kişilere anonimlik sağlayan yönleri bu hızlı büyümeden sorumlu gibi görünmektedir. We are social ve Hootsuite'in birlikte yayınladıkları "digital in 2019" raporundaki güncel dünya internet kullanım istatistikleri de bu gözlemezi doğrulamaktadır (1). Bu istatistik sonuçlarına göre dünya nüfusunun %57'si (4,388 milyar kişi) internet kullanıcısıdır ve bu sayıda yıllık %9,1 (+367 milyon) oranında artış gösterilmiştir (1). Yaş dağılımına bakıldığında kullanıcıların %22'sinin (1,690 milyar kişi) 0-12 yaş aralığında olduğu görülmektedir. Kullanıcıların %52'sinin mobil cihazları aracılığıyla internete erişim sağladıkları tespit edilmiştir. Yine aynı araştırmanın "digital 2019 in Turkey" başlığına baktığımızda ülkemiz için de sorunun azımsanmayacak boyutlara ulaştığını söylemek mümkündür. Bu başlığa göre nüfusumuzun %72'si (59,36 milyon kişi) internet kullanıcısıdır ve bu alanda yıllık %9'luk (+5 milyon) bir büyümeye mevcuttur. Ayrıca 52 milyon sosyal medya kullanıcımız bulunmaktadır ve 44 milyonu mobil cihazları aracılığıyla sosyal

Kaynaklar

- 1) We are social. (2019). Digital in 2019 global overview. Retrieved from <https://wearesocial.com/special-reports/digital-in-2019-global-overview>
- 2) TUİK Hanehalkı Bilişim Teknolojileri Kullanım Araştırması 2018
<https://dijilopedi.com/tuik-turkiyenin-internet-kullanim-aliskanliklari-raporu/> erişim tarihi:17.06.2019)
- 3) Aslan, A. (2016). The changes in safer internet use of children in Turkey between the years of 2010-2015 and impacts of related implementations. Unpublished doctoral dissertation. Atatürk University Institute of Educational Sciences.
- 4) Bank of America. (2016). Trends in consumer mobility report 2016. Retrieved from http://newsroom.bankofamerica.com/files/press_kit/additional/2016_BAC_Trends_in_Consumer_Mobility_Report.pdf
- 5) Ofcom. The communications market report. 2016. <https://www.ofcom.org.uk/research-and-data/media-literacy-research/childrens-childrens-parents-nov16> erişim tarihi:15.06.2019
- 6) Deloitte mobil kullanıcı araştırması. 2018. https://www2.deloitte.com/content/dam/Deloitte/tr/Documents/technology-media-telecommunications/deloitte_gmcs_2017.pdf
- 7) Bragazzi, N. L., & Del Puente, G. (2014). A proposal for including nomophobia in the new DSM-V. Psychology research and behavior management, 7, 155.
- 8) Yildirim, C., Sumuer, E., Adnan, M., & Yildirim, S. (2016). A growing fear: Prevalence of nomophobia among Turkish college students. Information Development, 32(5), 1322-1331
- 9) Dixit, S., Shukla, H., Bhagwat, A. K., Bindal, A., Goyal, A., Zaidi, A. K., & Srivastava, A. (2010). A study to evaluate mobile phone dependence among students of a medical college and associated hospital of central India. Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine, 35(2), 339.

- 10) Güney B. (2017). Dijital Bağımlılığın Dijital Kültüre Dönüşmesi: Netlessfobi. *Yeni Medya Elektronik Dergisi*, 1(2), 207-213.
- 11) Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, 29(4), 1841-1848.
- 12) Dell'Osso, B., Altamura, A. C., Allen, A., Marazziti, D., & Hollander, E. (2006). Epidemiologic and clinical updates on impulse control disorders: a critical review. *European archives of psychiatry and clinical neuroscience*, 256(8), 464-475.
- 13) Aboujaoude, E. (2010). Problematic Internet use: an overview. *World Psychiatry*, 9(2), 85-90.
- 14) Lee, Y. S., Han, D. H., Kim, S. M., & Renshaw, P. F. (2013). Substance abuse precedes internet addiction. *Addictive behaviors*, 38(4), 2022-2025.
- 15) American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (DSM-5®). American Psychiatric Pub.
- 16) Bağımlılık Danışma, Arındırma ve Reahabilitasyon Merkezleri Hakkındaki Yönetmelik. (2019) <http://www.resmigazete.gov.tr/es-kiler/2019/03/20190310-2.htm>
- 17) Young, K. S. (1998). Internet addiction: The emergence of a new clinical disorder. *Cyberpsychology & behavior*, 1(3), 237-244.
- 18) Tao, R., Huang, X., Wang, J., Zhang, H., Zhang, Y., & Li, M. (2010). Proposed diagnostic criteria for internet addiction. *Addiction*, 105(3), 556-564.
- 19) Hsu, W. Y., Lin, S. S., Chang, S. M., Tseng, Y. H., & Chiu, N. Y. (2015). Examining the diagnostic criteria for Internet addiction: Expert validation. *Journal of the Formosan Medical Association*, 114(6), 504-508.
- 20) Ceyhan, E., Ceyhan, A. A., & Gürcan, A. (2007). Problemli internet kullanımı ölçüğünün geçerlik ve güvenilirlik çalışmaları. *Kuram ve Uygulamada Eğitim Bilimleri Dergisi*, 7(1), 387-416.
- 21) Gündüz, S., & Kayri, M. (2010). Türkiye'de internet bağımlılık profili ve internet bağımlılık ölçüğünün geliştirilmesi: Geçerlik-güvenilirlik çalışması. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 39(39), 220-232.

- 22) Ayas, T., Çakır, Ö., & Horzum, M. B. (2011). Ergenler için bilgisayar bağımlılığı ölçüği. Kastamonu Eğitim Dergisi, 19(2), 439-448.
- 23) Ögel, K., Karadag, F., & Satgan, D. (2012). Psychometric properties of the addiction profile index internet addiction form (BAPINT). Klinik Psikofarmakoloji Bulteni, 22(1), S110.
- 24) Hong, S. B., Zalesky, A., Cocchi, L., Fornito, A., Choi, E. J., Kim, H. H., ... & Yi, S. H. (2013). Decreased functional brain connectivity in adolescents with internet addiction. PloS one, 8(2), e57831.
- 25) Han, D. H., Lee, Y. S., Yang, K. C., Kim, E. Y., Lyoo, I. K., & Renshaw, P. F. (2007). Dopamine genes and reward dependence in adolescents with excessive internet video game play. Journal of addiction medicine, 1(3), 133-138.
- 26) Han, D. H., Lee, Y. S., Na, C., Ahn, J. Y., Chung, U. S., Daniels, M. A., ... & Renshaw, P. F. (2009). The effect of methylphenidate on Internet video game play in children with attention-deficit/hyperactivity disorder. Comprehensive psychiatry, 50(3), 251-256.
- 27) Hoeft, F., Watson, C. L., Kesler, S. R., Bettinger, K. E., & Reiss, A. L. (2008). Gender differences in the mesocorticolimbic system during computer game-play. Journal of psychiatric research, 42(4), 253-258.
- 28) Mathiak, K. A., Klasen, M., Weber, R., Ackermann, H., Shergill, S. S., & Mathiak, K. (2011). Reward system and temporal pole contributions to affective evaluation during a first person shooter video game. BMC neuroscience, 12(1), 66.
- 29) Kätsyri, J., Hari, R., Ravaja, N., & Nummenmaa, L. (2013). The opponent matters: elevated fMRI reward responses to winning against a human versus a computer opponent during interactive video game playing. Cerebral Cortex, 23(12), 2829-2839.
- 30) Weinstein, A., & Lejoyeux, M. (2010). Internet addiction or excessive internet use. The American journal of drug and alcohol abuse, 36(5), 277-283.
- 31) Lee, Y. S., Han, D. H., Yang, K. C., Daniels, M. A., Na, C., Kee, B. S., & Renshaw, P. F. (2008). Depression like characteristics of 5HTTLPR polymorphism and temperament in excessive internet users. Journal of affective disorders, 109(1-2), 165-169.

- 32) Montag, C., Kirsch, P., Sauer, C., Marktett, S., & Reuter, M. (2012). The role of the CHRNA4 gene in Internet addiction: a case-control study. *Journal of addiction medicine*, 6(3), 191-195.
- 33) Yuan, K., Cheng, P., Dong, T., Bi, Y., Xing, L., Yu, D., ... & Qin, W. (2013). Cortical thickness abnormalities in late adolescence with online gaming addiction. *PloS one*, 8(1), e53055.
- 34) Weng, C. B., Qian, R. B., Fu, X. M., Lin, B., Han, X. P., Niu, C. S., & Wang, Y. H. (2013). Gray matter and white matter abnormalities in online game addiction. *European journal of radiology*, 82(8), 1308-1312.
- 35) Rolls, E. T. (2000). The orbitofrontal cortex and reward. *Cerebral cortex*, 10(3), 284-294.
- 36) Rolls, E. T., & Grabenhorst, F. (2008). The orbitofrontal cortex and beyond: from affect to decision-making. *Progress in neurobiology*, 86(3), 216-244.
- 37) Naqvi, N. H., & Bechara, A. (2009). The hidden island of addiction: the insula. *Trends in neurosciences*, 32(1), 56-67.
- 38) Vink, J. M., van Beijsterveldt, T. C., Huppertz, C., Bartels, M., & Boomsma, D. I. (2016). Heritability of compulsive Internet use in adolescents. *Addiction biology*, 21(2), 460-468.
- 39) Li, M., Chen, J., Li, N., & Li, X. (2014). A twin study of problematic internet use: its heritability and genetic association with effortful control. *Twin Research and Human Genetics*, 17(4), 279-287.
- 40) Park, M. H., Park, E. J., Choi, J., Chai, S., Lee, J. H., Lee, C., & Kim, D. J. (2011). Preliminary study of Internet addiction and cognitive function in adolescents based on IQ tests. *Psychiatry Research*, 190(2-3), 275-281.
- 41) Yalçın, U. D. Ö., & Karaçetin, G. İnternet Bağımlılığı ve Diğer Teknolojik Bağımlılıklar.
- 42) De Berardis, D., D'Albenzio, A., Gambi, F., Sepede, G., Valchera, A., Conti, C. M., ... & Serroni, N. (2009). Alexithymia and its relationships with dissociative experiences and Internet addiction in a nonclinical sample. *CyberPsychology & Behavior*, 12(1), 67-69.
- 43) Mehroof, M., & Griffiths, M. D. (2010). Online gaming addiction: the role of sensation seeking, self-control, neuroticism, aggression,

- state anxiety, and trait anxiety. *Cyberpsychology, behavior, and social networking*, 13(3), 313-316.
- 44) Bozoglan, B., Demirer, V., & Sahin, I. (2013). Loneliness, self-esteem, and life satisfaction as predictors of Internet addiction: A cross-sectional study among Turkish university students. *Scandinavian journal of psychology*, 54(4), 313-319.
- 45) Brand, M., Young, K. S., & Laier, C. (2014). Prefrontal control and Internet addiction: a theoretical model and review of neuropsychological and neuroimaging findings. *Frontiers in human neuroscience*, 8, 375.
- 46) Kandri, T. A., Bonotis, K. S., Floros, G. D., & Zafiroglou, M. M. (2014). Alexithymia components in excessive internet users: A multi-factorial analysis. *Psychiatry research*, 220(1-2), 348-355.
- 47) Li, W., O'Brien, J. E., Snyder, S. M., & Howard, M. O. (2015). Characteristics of internet addiction/pathological internet use in US university students: a qualitative-method investigation. *PloS one*, 10(2), e0117372.
- 48) Wang, C. W., Ho, R. T., Chan, C. L., & Tse, S. (2015). Exploring personality characteristics of Chinese adolescents with internet-related addictive behaviors: Trait differences for gaming addiction and social networking addiction. *Addictive behaviors*, 42, 32-35.
- 49) Morsünbüll, Ü. (2014). The association of internet addiction with attachment styles, personality traits, loneliness and life satisfaction İnternet bağımlılığının bağlanma stilleri, kişilik özellikleri, yalnızlık ve yaşam doyumu ile ilişkisi. *Journal of Human Sciences*, 11(1), 357-372.
- 50) Ozturk, E., & Kaymak Ozmen, S. (2011). An Investigation of the Problematic Internet Use of Teacher Candidates Based on Personality Types, Shyness and Demographic Factors. *Educational Sciences: Theory and Practice*, 11(4), 1799-1808.
- 51) Şenormancı, Ö., Şenormancı, G., Güçlü, O., & Konkan, R. (2014). Attachment and family functioning in patients with internet addiction. *General hospital psychiatry*, 36(2), 203-207.
- 52) Şenormancı, Ö., Saraçlı, Ö., Atasoy, N., Şenormancı, G., Kokturk, F., & Atik, L. (2014). Relationship of Internet addiction with

- cognitive style, personality, and depression in university students. *Comprehensive Psychiatry*, 55(6), 1385-1390.
- 53) Floros, G., & Siomos, K. (2013). The relationship between optimal parenting, Internet addiction and motives for social networking in adolescence. *Psychiatry research*, 209(3), 529-534.
- 54) Karaer, Y., & Akdemir, D. (2019). Parenting styles, perceived social support and emotion regulation in adolescents with internet addiction. *Comprehensive psychiatry*.
- 55) Zhang, M. W., Lim, R. B., Lee, C., & Ho, R. C. (2018). Prevalence of internet addiction in medical students: a meta-analysis. *Academic Psychiatry*, 42(1), 88-93.
- 56) Fattore, L., Melis, M., Fadda, P., & Fratta, W. (2014). Sex differences in addictive disorders. *Frontiers in neuroendocrinology*, 35(3), 272-284.
- 57) Pujazon-Zazik, M., & Park, M. J. (2010). To tweet, or not to tweet: gender differences and potential positive and negative health outcomes of adolescents' social internet use. *American journal of men's health*, 4(1), 77-85.
- 58) Carli, V., Durkee, T., Wasserman, D., Hadlaczky, G., Despalins, R., Kramarz, E., ... & Kaess, M. (2013). The association between pathological internet use and comorbid psychopathology: a systematic review. *Psychopathology*, 46(1), 1-13.
- 59) Bakken, I. J., Wenzel, H. G., Götestam, K. G., Johansson, A., & Øren, A. (2009). Internet addiction among Norwegian adults: a stratified probability sample study. *Scandinavian journal of psychology*, 50(2), 121-127.
- 60) Aboujaoude, E., & Starcevic, V. (Eds.). (2015). *Mental health in the digital age: grave dangers, great promise*. Oxford University Press.
- 61) Bernardi, S., & Pallanti, S. (2009). Internet addiction: a descriptive clinical study focusing on comorbidities and dissociative symptoms. *Comprehensive psychiatry*, 50(6), 510-516.
- 62) Yen, J. Y., Yen, C. F., Wu, H. Y., Huang, C. J., & Ko, C. H. (2011). Hostility in the real world and online: the effect of internet addiction, depression, and online activity. *Cyberpsychology, Behavior, and Social Networking*, 14(11), 649-655.

- 63) Dong, G., Lu, Q., Zhou, H., & Zhao, X. (2011). Precursor or sequela: pathological disorders in people with Internet addiction disorder. *PloS one*, 6(2), e14703.
- 64) Cho, S. M., Sung, M. J., Shin, K. M., Lim, K. Y., & Shin, Y. M. (2013). Does psychopathology in childhood predict internet addiction in male adolescents?. *Child Psychiatry & Human Development*, 44(4), 549-555.
- 65) Evren, B., Evren, C., Dalbudak, E., Topcu, M., & Kutlu, N. (2019). The impact of depression, anxiety, neuroticism, and severity of Internet addiction symptoms on the relationship between probable ADHD and severity of insomnia among young adults. *Psychiatry research*, 271, 726-731.
- 66) MacMullin, J. A., Lunsky, Y., & Weiss, J. A. (2016). Plugged in: Electronics use in youth and young adults with autism spectrum disorder. *Autism*, 20(1), 45-54.
- 67) Fischer, G., Brunner, R., Parzer, P., Klug, K., Durkee, T., Carli, V., ... & Kaess, M. (2012). Depression, deliberate self-harm and suicidal behaviour in adolescents engaging in risky and pathological internet use. *Praxis der Kinderpsychologie und Kinderpsychiatrie*, 61(1), 16-31.
- 68) Yen, J. Y., Ko, C. H., Yen, C. F., Chen, S. H., Chung, W. L., & Chen, C. C. (2008). Psychiatric symptoms in adolescents with Internet addiction: Comparison with substance use. *Psychiatry and clinical neurosciences*, 62(1), 9-16.
- 69) Mazhari, S. (2012). Association between problematic Internet use and impulse control disorders among Iranian university students. *Cyberpsychology, Behavior, and Social Networking*, 15(5), 270-273.
- 70) Roma, P., Ricci, F., Kotzalidis, G. D., Guidarelli, B., Pancheri, C., Mazza, C., ... & Ferracuti, S. (2019). Psychopathology and personality in problematic internet users. *Rivista di psichiatria*, 54(1), 24-30.
- 71) Steinbuechel, T. A., Herpertz, S., Kuelpmann, I., Kehyayan, A., Dieris-Hirche, J., & Te, B. W. (2018). Internet Addiction, Suicidality and Non-Suicidal Self-Harming Behavior-A Systematic Review. *Psychotherapie, Psychosomatik, Medizinische Psychologie*, 68(11), 451-461.

- 72) Cheng, Y. S., Tseng, P. T., Lin, P. Y., Chen, T. Y., Stubbs, B., Carvalho, A. F., ... & Wu, M. K. (2018). Internet Addiction and Its Relationship With Suicidal Behaviors: A Meta-Analysis of Multinational Observational Studies. *The Journal of clinical psychiatry*, 79(4).
- 73) Bianchi, A., Phillips, J.G. Psychological predictors of problem mobile phone use. 2005. *Cyberpsychol Behav*, 8:39-51.
- 74) Billieux J.(2012). Problematic use of the mobile phone: A literature review and a pathways model. *Curr Psychiatry Rev*, 8: 299-307.
- 75) Talan, T., Korkmaz, A., & Gezer, M. (2016). Üniversite Öğrencilerinin Mobil Telefon Bağımlılık Düzeylerinin İncelenmesi Üzerine. Uluslararası Çağdaş Eğitim Araştırmaları Kongresi, 424-34.
- 76) Institute of Advanced Motorists (IAM). Don't poke me I'm driving: A simulator study on smartphone use, [https://www.iamroadsmart.com/docs/default-source/default-document-library/don't-poke-me-i'm-driving.pdf](https://www.iamroadsmart.com/docs/default-source/default-document-library/don-t-poke-me-i'm-driving.pdf)
- 77) THINK campaign. Mobile phones. <http://think.direct.-gov.uk/mobile-phones.html>
- 78) Entertainment Software Association (2018)<https://www.the-esa.com/esa-research/2018-essential-facts-about-the-computer-and-video-game-industry/>
- 79) <https://www.who.int/features/qa/gaming-disorder/en/>
- 80) Dijital oyun bağımlılığı çalışayı, Kasım 2018. <https://sggm.saglik.gov.tr/TR,53949/dijital-oyun-bagimliliği-calistayı.html> (erişim tarihi: 17.06.2019)
- 81) Eichenbaum, A., Kattner, F., Bradford, D., Gentile, D. A., & Green, C. S. (2015). Role-playing and real-time strategy games associated with greater probability of Internet gaming disorder. *Cyberpsychology, Behavior, and Social Networking*, 18(8), 480-485.
- 82) Smyth, J. M. (2007). Beyond self-selection in video game play: An experimental examination of the consequences of massively multi-layer online role-playing game play. *CyberPsychology & Behavior*, 10(5), 717-721.
- 83) Porter, G., Starcevic, V., Berle, D., & Fenech, P. (2010). Recognizing problem video game use. *Australian and New Zealand Journal of Psychiatry*, 44(2), 120-128.

- 84) Demetrovics, Z., Urbán, R., Nagygyörgy, K., Farkas, J., Griffiths, M. D., Pápay, O., ... & Oláh, A. (2012). The development of the problematic online gaming questionnaire (POGQ). *PloS one*, 7(5), e36417.
- 85) Yip, S. W., & Potenza, M. N. (2009). Understanding 'behavioral' addictions: insights from research. *Principles of Addiction Medicine*. 4th ed. New York: Wolters Kluwer, 45-63.
- 86) Charlton, J. P. (2002). A factor-analytic investigation of computer 'addiction'and engagement. *British journal of psychology*, 93(3), 329-344.
- 87) Balhara, Y. P. S., Mahapatra, A., Sharma, P., & Bhargava, R. (2018). Problematic internet use among students in South-East Asia: Current state of evidence. *Indian journal of public health*, 62(3), 197.
- 88) King, S. M., Keyes, M., Winters, K. C., McGue, M., & Iacono, W. G. (2017). Genetic and environmental origins of gambling behaviors from ages 18 to 25: A longitudinal twin family study. *Psychology of Addictive Behaviors*, 31(3), 367.
- 89) Chin-Sheng, W., & Chiou, W. B. (2007). The motivations of adolescents who are addicted to online games: A cognitive perspective. *Adolescence*, 42(165), 179.
- 90) Irmak, A. Y. (2014). Ortaöğretim öğrencilerinin dijital oyun oynama davranışlarının sağlık davranışları etkileşim modeline göre incelemesi. Unpublished doctora's thesis. İstanbul University.
- 91) Oral, A. H., & Arabacıoğlu, T. (2018). İlkokul 4. Sınıf Öğrencilerinin Dijital Oyun Bağımlılıklarının Çeşitli Değişkenler Açısından İncelenmesi. *Trakya Eğitim Dergisi*, 9(1), 44-60.
- 92) Kaya, A. B. (2013). Çevrimiçi oyun bağımlılığı ölçüğünün geliştirilmesi: Geçerlik ve güvenirlilik çalışması (Master's thesis, Gaziosmanpaşa Üniversitesi Eğitim Bilimleri Enstitüsü).
- 93) Horzum, M. B., Ayas, T., & Balta, Ö. Ç. (2016). Çocuklar için bilgisayar oyun bağımlılığı ölçü. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 3(30).
- 94) Hazar, Z., & Hazar, M. (2017). Digital game addiction scale for children. *Journal of Human Sciences*, 14(1), 203-216.

- 95) Yilmaz, E., Griffiths, M. D., & Kan, A. (2017). Development and validation of videogame addiction scale for children (VASC). International journal of mental health and addiction, 15(4), 869-882.
- 96) Irmak, A. Y., & Erdogan, S. (2015). Dijital Oyun Bagimliliği Ölçeği Türkçe formunun geçerliliği ve güvenilirliği*/Validity and reliability of the Turkish version of the Digital Game Addiction Scale. Anadolu Psikiyatri Dergisi, 16, 10.
- 97) Arıcak, O. T., Dinç, M., Yay, M., & Griffiths, M. D. (2019). İnternet Oyun Oynamaya Bozukluğu Ölçeği Kısa Formu'nun (İOOBÖ9-KF) Türkçeye Uyarlanması: Geçerlik ve Güvenirlik Çalışması.
- 98) Kuss, D. J., & Griffiths, M. D. (2012). Internet gaming addiction: A systematic review of empirical research. International Journal of Mental Health and Addiction, 10(2), 278-296.
- 99) Ko, C. H., Liu, G. C., Hsiao, S., Yen, J. Y., Yang, M. J., Lin, W. C., ... & Chen, C. S. (2009). Brain activities associated with gaming urge of online gaming addiction. Journal of psychiatric research, 43(7), 739-747.
- 100) Han, D. H., Hwang, J. W., & Renshaw, P. F. (2010). Bupropion sustained release treatment decreases craving for video games and cue-induced brain activity in patients with Internet video game addiction. Experimental and clinical psychopharmacology, 18(4), 297.
- 101) Peters, C. S., & Malesky Jr, L. A. (2008). Problematic usage among highly-engaged players of massively multiplayer online role playing games. CyberPsychology & Behavior, 11(4), 481-484.
- 102) Allison, S. E., Von Wahlde, L., Shockley, T., & Gabbard, G. O. (2006). The development of the self in the era of the internet and role-playing fantasy games. American Journal of Psychiatry, 163(3), 381-385
- 103) Kim, E. J., Namkoong, K., Ku, T., & Kim, S. J. (2008). The relationship between online game addiction and aggression, self-control and narcissistic personality traits. European psychiatry, 23(3), 212-218.

- 104) Caplan, S., Williams, D., & Yee, N. (2009). Problematic Internet use and psychosocial well-being among MMO players. *Computers in human behavior*, 25(6), 1312-1319.
- 105) Kim, N., Hughes, T. L., Park, C. G., Quinn, L., & Kong, I. D. (2016). Altered autonomic functions and distressed personality traits in male adolescents with internet gaming addiction. *Cyberpsychology, Behavior, and Social Networking*, 19(11), 667-673.
- 106) Lee, S. Y., Lee, H. K., & Choo, H. (2017). Typology of Internet gaming disorder and its clinical implications. *Psychiatry and clinical neurosciences*, 71(7), 479-491.
- 107) Ferguson, C. J. (2007). The good, the bad and the ugly: A meta-analytic review of positive and negative effects of violent video games. *Psychiatric quarterly*, 78(4), 309-316.
- 108) Ferguson, C. J., San Miguel, C., Garza, A., & Jerabeck, J. M. (2012). A longitudinal test of video game violence influences on dating and aggression: A 3-year longitudinal study of adolescents. *Journal of psychiatric research*, 46(2), 141-146.
- 109) Anderson, C. A., Shibuya, A., Ihori, N., Swing, E. L., Bushman, B. J., Sakamoto, A., ... & Saleem, M. (2010). Violent video game effects on aggression, empathy, and prosocial behavior in Eastern and Western countries: A meta-analytic review. *Psychological bulletin*, 136(2), 151.
- 110) Bathány, D., Müller, K. W., Benker, F., & Woelfling, K. (2009). Computer game playing: clinical characteristics of dependence and abuse among adolescents. *Wiener Klinische Wochenschrift*, 121(15-16), 502-509.
- 111) Starcevic, V., Berle, D., Porter, G., & Fenech, P. (2011). Problem video game use and dimensions of psychopathology. *International Journal of Mental Health and Addiction*, 9(3), 248-256.
- 112) Phan, T. L. T., Tucker, J. M., Siegel, R., Christison, A. L., Stratbucker, W., Werk, L. N., ... & Stubblefield, S. (2018). Electronic Gaming Characteristics Associated with Class 3 Severe Obesity in Youth Who Attend the Pediatric Weight Management Programs of the COMPASS Network. *Childhood Obesity*, 15(1), 21-30.

- 113) Chuang, Y. C. (2006). Massively Multiplayer Online Role-Playing Game-Induced Seizures: A Neglected Health Problem in Internet Addiction. *CyberPsychology & Behavior*, 9(4), 451-456.