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Abstract

Autism Spectrum Disorder (ASD) is a complicated developmental condition. ASD is typically known as a male-associated disorder with three to four times as many males diagnosed with the disorder than females (Loomes, Hull, & Mandy, 2017). Recent studies on the differences between males and females with ASD have recognized an underdiagnosis of females with ASD. Researchers have found that females with ASD have a specific set of mannerisms and struggles that differ from their male counterparts, which may be "camouflaging" the females into society (Lai et al., 2019). Many undiagnosed females with ASD are not receiving the mental, emotional, and physical help that they need, are commonly struggling with secondary disorders, and are more susceptible to sexual abuse (Lai et al., 2011; Roberts, Koenen, Lyall, Robinson, & Weisskopf, 2015). Females with ASD face serious issues that must be examined and addressed.

Individuals with Autism Spectrum Disorder (ASD) face an assortment of social, emotional, and mental challenges. Typically, individuals with ASD have different and unexpected communication styles, difficulty recognizing others' social cues, discomfort when making eye contact, delayed speech and unusual speech styles, and a preference for narrow or extreme groups of interests (Lai, Lombardo, Baron-Cohen, & Simon, 2014). Notable strengths can include an ability to focus on details, a perseverance for completing tasks, and an aptitude in following rules or instructions. While little is understood about the origins of autism, there is evidence to suggest atypical brain development and organization that may be related to genetic and environmental factors (Chaste & Leboyer, 2012). The U.S. Centers for Disease Control and Prevention (2018) reported that in 2014 one out of every fifty-nine individuals was identified with ASD, in contrast to the 1:150 ratio in the year 2000. More recently, research has revealed an even higher uptick, reflecting occurrences as high as one in 40 individuals having ASD (Kogan et al., 2018). Since 2006, when ASD screening became recommended, the familiarity and acceptance of the disorder has grown, leading to a spike in diagnoses in recent years (Wright, 2017).

Although ASD has numerous subtypes, many studies depict how females with ASD are characteristically different than their male counterparts across the spectrum. Females with ASD have not only demonstrated a different set of mannerisms, but also face a variety of unique challenges. Females are often under-recognized on the spectrum and are three to four times less likely to be diagnosed with autism than males (Loomes et al., 2017). Males, on the other hand, not only dominate the autism spectrum in numbers, but also in the amount of research done on ASD. This brings into question whether males are more likely to develop ASD or if there is a diagnostic gender bias causing females to be underdiagnosed (Gould & Ashton-Smith, 2011). In this paper, I will evaluate the literature that examines the specific, gender-unique challenges that females with ASD experience. I will be discussing the underdiagnosis of females with ASD, the higher risk of sexual abuse for females with ASD, and the frequent development of secondary mental health concerns in females with ASD.

Females with Autism are Underdiagnosed

Females with ASD often go undiagnosed or receive a late diagnosis (Mandic-Maravic et al., 2015). An accurate and early diagnosis for individuals with ASD is essential to optimize their social and emotional development (Milner, McIntosh, Colvert, & Happé, 2019). Baldwin and Costley (2016) found that females who did not receive a diagnosis until the age of 18 or older were far more likely to struggle later in life because of the lack of necessary assistance and treatment they could have received in their adolescent years. In this section, I will discuss two common explanations as to why females may be underdiagnosed: camouflaging and differences in presentation than males.

Camouflaging

Females with ASD are able to camouflage their autistic traits better than males with ASD (Lai et al. 2011). Camouflaging is defined as presenting and behaving oneself as neurotypical in order to fit into society (Milner et al., 2019; Schuck, Flores, & Fung, 2019). Mimicking behaviors, communicating nonverbally, reducing strange behaviors around others, and preparing small talk or "scripts" beforehand are ways females attempt to camouflage (Hull et al., 2017). In one study, women and girls reported to successfully hide their autistic traits by learning stock phrases or studying the appropriate amount of time they needed to maintain eye contact in order to appear normal in conversation (Lai et al., 2019). In another study, some females with autism reported that they camouflage in order to connect with friends, go on dates, get out of the spotlight, get a job, or simply be seen as neurotypical (Hull et al., 2017).

Researchers presented a questionnaire to individuals with ASD and found that 89.2% of males with ASD and 90.9% of females with ASD attempt to camouflage their autism in order to fit in (Cassidy, Bradley, Shaw, & Baron-Cohen, 2018). Though both females and males try to hide autistic traits, females attained much higher scores, indicating that they are more adept at camouflaging and do so in more situations than males (Lai et al., 2011).

Differences in presentation from males

Autistic traits manifest differently between males and females with ASD, which subsequently causes false negative results in females being evaluated (Halladay et al., 2015; Lai, Baron-Cohen, & Buxbaum,

2015). These diagnostic evaluations, calibrated to male-specific traits such as hyperactivity, aggression, peculiar interaction styles, and obsessive interests, may be misleading when diagnosing females. Several studies show that females who do not present these typically male autistic traits are not identified or diagnosed until much later than males unless they manifest other severe behavioral issues or learning disabilities (Lai et al., 2015; Frazier, et al., 2014).

Males, who may manifest their autistic conditions with hyperactivity and aggression, show behaviors that cause parents, doctors, and teachers to seek a clinical evaluation, making it more likely for them to receive a diagnosis (Mandy et al., 2012). Alternatively, females with ASD do not manifest as much hyperactivity or aggression than males despite being just as emotionally impaired (Mandy et al., 2012). Individuals with ASD are also known to have peculiar interaction styles, which causes them to struggle obtaining and maintaining meaningful relationships. However, several studies clarify that these assumptions are accurate primarily for males (Hiller, Young, & Weber, 2016; Milner et al., 2019; Head, McGillivray, & Stokes, 2019). Males with ASD are more likely to be withdrawn and detached from others (Hiller et al., 2016), whereas females with ASD seek and desire social relationships (Milner et al., 2019). In a study by Head et al. (2014), researchers examined empathy and friendship quality by comparing twenty-five males with ASD and twenty-five autistic females with ASD to fifty-one neurotypical children. Although it was a relatively small sample size, they found that while females with ASD scored lower than neurotypical girls in empathy and friendship quality, they scored just as well as neurotypical boys. Conversely, boys with ASD performed poorly on all measures (Head et al., 2014). Females with ASD appear more neurotypical than males with ASD in the social aspects examined, causing additional difficulty in distinguishing ASD in females (Milner et al., 2019; Head et al., 2014).

Another common diagnostic factor for many males on the spectrum is having specific obsessive interests. However, according to a study done in 2014, having obsessive interests is a very male oriented-trait and one that females do not seem to develop as regularly (Frazier, Georgiades Bishop, & Hardan, 2014). In addition,

females with ASD who do possess obsessive interests or passions have fewer and different ones than their male counterparts, which likely causes it to be overlooked as an autistic characteristic (Volkers, 2018). Overall, females who are considered candidates to receive a clinical evaluation might not even be detected for ASD due to the gender-biased evaluation (Ratto et al., 2018).

Females with Autism are Prone to Sexual Abuse

Studies have found that females with ASD are at a high risk of being sexually abused (Ohlsson, Lichtenstein, Långström, & Pettersson, 2018; Cridland, Jones, Caputi, & Magee, 2014). In one such study, researchers interviewed 1,077 women who exhibited autistic traits and found that 26.7% of those with few autistic traits and 40.1% of those with higher autistic characteristics had been sexually abused (Roberts et al., 2015). Bargiela, Steward, and Mandy (2016) interviewed fourteen women who had received a late diagnosis of autism and asked them about their experiences as adolescents. Although the sample size was small, nine of the fourteen women reported having been sexually abused in their youth. The women reported that it was hard for them to sense danger and often felt obligated to have unwanted relations to fit in (Bargiela et al., 2016).

As stated earlier, females on the autism spectrum typically try to "camouflage" their autism, which may also put them at risk for sexual exploitation (Hazell, 2017). As they attempt to avoid social rejection, females with autism become more vulnerable to abuse and dangerous situations (Hazell, 2017). For example, if a neurotypical individual has a boyfriend, a girl with ASD would likely also want a boyfriend. If she then saw males desiring sexual relationships with females, she might in turn believe that being sexually promiscuous is a way to obtain a boyfriend. This study, in conjunction with many others, demonstrates how vulnerable females with ASD are to sexual abuse.

Females with ASD are at a Greater Risk to Develop Secondary Mental Health Concerns

Females with ASD are likely to be diagnosed with multiple other disorders and concerns. These secondary concerns, such as

psychological disorders, sexual disorders, and eating disorders, can either exacerbate ASD traits or mask autism entirely for those who have not yet been diagnosed (Rynkiewicz & Łucka, 2018; Schöttle, Briken, Tüscher & Turner, 2017; Westwood & Tchanturia, 2017). An understanding of how these secondary disorders relate to autism can help clinicians provide more holistic treatment.

Psychological Disorders

Clinical data indicate that females on the autism spectrum are at a greater risk for developing depression and anxiety (Rynkiewicz & Łucka, 2018). These mood disorders are typically diagnosed in females prior to receiving a diagnosis of autism. Females with ASD have more suicidal tendencies than males with ASD (Rynkiewicz & Łucka, 2018). One study found that 74% of females with ASD have a history of non-suicidal self-injury while 53.8% of their male counterparts have such history (Cassidy, Bradley, Shaw, & Simon Baron-Cohen, 2018).

Sexual Disorders

Females with ASD have poorer levels of sexual functioning and do not typically feel as comfortable in sexual relationships than neurotypical females (Schöttle et al., 2017). Some females with ASD do not desire to have sexual relations. Sex appears to bring social challenges that are too difficult for them to comprehend and cope with. Although gender dysphoria is not a sexual disorder, many females consistently struggle with their identity, which may cause them mental health concerns (George & Stokes, 2017).

Eating Disorders

Females with ASD often struggle with various eating disorders. It is common for girls on the spectrum to first receive clinical attention for an eating disorder before receiving a diagnosis of ASD (Baron-Cohen, et. al., 2013). Studies consistently show links between females with ASD and anorexia nervosa (Westwood & Tchanturia, 2017; Baron-Cohen et al., 2013) and/or other eating disorders (Wentz et al., 2005). Some estimates state that 20% of individuals with long-term eating disorders have autism (Wentz et al., 2005). If these rates are true, females with autism may also need assistance to cope with

typically related causes of eating disorders, such as self-dissatisfaction, low self-esteem, or any of the secondary disorders discussed earlier in this section (Polivy & Herman, 2002).

Conclusion

While some differences in traits between males and females with ASD result from typical sex differences across the general population, several studies suggest that differences in the cognitive and behavioral phenotypes of females with ASD are present and should be considered by clinicians (Hull, Mandy, & Petrides, 2017). Further effort may need to be focused on viewing autism with a more sex-balanced lens. With additional specific research on the female autism phenotype, it is predicted that individuals of both sexes will be able to receive more effective treatment, better resources, and the specialized help they need (Milner et al., 2019). Future research will likely aid clinicians, therapists, teachers, family, and friends on how they can assist and strengthen females with ASD that they treat or personally know. This increased awareness and research of females with ASD may help to more effectively diagnose females on the spectrum and better address the specific challenges that they face (Ratto et al., 2018). Females with ASD who seem to be hiding in plain sight will be more likely to receive a proper, early diagnosis and get the necessary assistance they need for their autistic challenges, the abuse they may be enduring, and the secondary disorders they may have.

References

Baldwin, S., & Costley, D. (2016). The experiences and needs of female adults with high-functioning autism spectrum disorder. Autism, 20(4), 483-495.

Bargiela, S., Steward, R., & Mandy, W. (2016). The experiences of late-diagnosed women with autism spectrum conditions: An investigation of the female autism phenotype. Journal of Autism and Developmental Disorders, 46(10), 3281-3294.

Baron-Cohen, S., Jaffa, T., Davies, S., Auyeung, B., Allison, C., & Wheelwright, S. (2013). Do girls with anorexia nervosa have elevated autistic traits? Molecular Autism, 4(1), 24.

Cassidy, S., Bradley, L., Shaw, R., & Baron-Cohen, S. (2018a). Risk markers for suicidality in autistic adults. Molecular Autism, 9(1), 42.

Centers for Disease Control and Prevention. (2018). Data & statistics on autism spectrum disorder. Retrieved from https://www.cdc.gov/ncbddd/autism/data.html

Chaste, P., & Leboyer, M. (2012). Autism risk factors: Genes, environment, and gene-environment interactions. Dialogues in Clinical Neuroscience, 14(3), 281-292. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/23226953

Cridland, E. K., Jones, S. C., Caputi, P., & Magee, C. A. (2014). Being a girl in a boys' world: Investigating the experiences of girls with autism spectrum disorders during adolescence. Journal of Autism and Developmental Disorders, 44(6), 1261-1274.

Frazier, T. W., Georgiades, S, Bishop, S. L., PhD, & Hardan, A. Y., MD. (2014). Behavioral and cognitive characteristics of females and males with autism in the simons simplex collection. Journal of the American Academy of Child & Adolescent Psychiatry, 53(3), 329-340.e3.

George, R., & Stokes, M. A. (2017). Gender identity and sexual orientation in autism spectrum disorder. Autism : The International Journal of Research and Practice, 22(8), 970-982. doi:10.1177/1362361317714587

Gould, J., & Ashton-Smith, J. (2011, January). Missed diagnosis or misdiagnosis? Girls and women on the autism spectrum. Good Autism Practice (GAP), 12(1), 34-41.

Halladay, A. K., Bishop, S., Constantino, J. N., Daniels, A. M., Koenig, K., Palmer, K., . . . Szatmari, P. (2015). Sex and gender differences in autism spectrum disorder: Summarizing evidence gaps and identifying emerging areas of priority. Molecular Autism, 6(1), 36.

Hazell, W. (2017, Feb 10,). Your school has at least one girl on the autistic spectrum. Times Educational Supplement, , 17. Retrieved from https://search.proquest.com/docview/1869134225

Head, A. M., McGillivray, J. A., & Stokes, M. A. (2014). Gender differences in emotionality and sociability in children with autism spectrum disorders. Molecular Autism, 5(1), 19.

Hiller, R. M., Young, R. L., & Weber, N. (2016). Sex differences in pre-diagnosis concerns for children later diagnosed with autism spectrum disorder. Autism, 20(1), 75-84.

Hull, L., Mandy, W., & Petrides, K. (2017). Behavioural and cognitive sex/gender differences in autism spectrum condition and typically developing males and females SAGE Publications (UK and US).

Hull, L., Petrides, K., Allison, C., Smith, P., Baron-Cohen, S., Lai, M., & Mandy, W. (2017). "Putting on my best normal": Social camouflaging in adults

with autism spectrum conditions. Journal of Autism and Developmental Disorders, 47(8), 2519-2534.

Kogan, M. D., Blumberg, S. J., Schieve, L. A., Boyle, C. A., Perrin, J. M., Ghandour, R. M., . . . van Dyck, P. C. (2009). Prevalence of parent-reported diagnosis of autism spectrum disorder among children in the US, 2007. Pediatrics, 124(5), 1395-1403.

Lai, M., Lombardo, M. V., & Baron-Cohen, S., (2014). Autism. The Lancet, 383(9920), 896-910.

Lai, M., Baron-Cohen, S., & Buxbaum, J. D. (2015). Understanding autism in the light of sex/gender. Molecular Autism, 6(1), 24.

Lai, M., Lombardo, M. V., Chakrabarti, B., Ruigrok, A. N., Bullmore, E. T., Suckling, J., . . . Williams, S. C. (2019). Neural self-representation in autistic women and association with 'compensatory camouflaging'. Autism, 23(5), 1210-1223.

Lai, M., Lombardo, M. V., Pasco, G., Ruigrok, A. N. V., Wheelwright, S. J., Sadek, S. A., . . . Baron-Cohen, S. (2011). A behavioral comparison of male and female adults with high functioning autism spectrum conditions. PloS One, 6(6), e20835.

Lai, M., Lombardo, M. V., Suckling, J., Ruigrok, A. N. V., Chakrabarti, B., Ecker, C., . . . Baron-Cohen, S. (2013). Biological sex affects the neurobiology of autism. Brain : A Journal of Neurology, 136(Pt 9), 2799-2815.

Loomes, R., Hull, L., & Mandy, W. P. L. (2017). What is the male-to-female ratio in autism spectrum disorder? A systematic review and meta-analysis. Retrieved from https://www.openaire.eu/search/publication?articleId=od_____322::83fa6eccfd0041a25e1e604de272702b

Mandic-Maravic, V., Pejovic-Milovancevic, M., Mitkovic-Voncina, M., Kostic, M., Aleksic-Hil, O., Radosavljev-Kircanski, J., . . . Lecic-Tosevski, D. (2015). Sex differences in autism spectrum disorders: Does sex moderate the pathway from clinical symptoms to adaptive behavior? Scientific Reports, 5(1), 10418.

Mandy, W., Chilvers, R., Chilvers, R., Chowdhury, U., Chowdhury, U., Salter, G., . . . Skuse, D. (2012). Sex differences in autism spectrum disorder: Evidence from a large sample of children and adolescents. Journal of Autism and Developmental Disorders, 42(7), 1304-1313.

Mehtar, M., & Mukaddes, N. M. (2011). Posttraumatic stress disorder in individuals with diagnosis of autistic spectrum disorders. Research in Autism Spectrum Disorders, 5(1), 539-546.

Milner, V., McIntosh, H., Colvert, E., & Happé, F. (2019). A qualitative exploration of the female experience of autism spectrum disorder (ASD). Journal of Autism and Developmental Disorders, 49(6), 2389-2402.

Ohlsson Gotby, V., Lichtenstein, P., Långström, N., & Pettersson, E. (2018). Childhood neurodevelopmental disorders and risk of coercive sexual

victimization in childhood and adolescence – a population-based prospective twin study. Journal of Child Psychology and Psychiatry, 59(9), 957-965.

Polivy, J., & Herman, C. P. (2002). Causes of eating disorders. Annual Review of Psychology, 53(1), 187-213.

Ratto, A. B., Kenworthy, L., Yerys, B. E., Bascom, J., Wieckowski, A. T., White, S. W., . . . Register-Brown, K. (2018). What about the girls? sex-based differences in autistic traits and adaptive skills. Journal of Autism and Developmental Disorders, 48(5), 1698-1711.

Roberts, A. L., Koenen, K. C., Lyall, K., Robinson, E. B., & Weisskopf, M. G. (2015). Association of autistic traits in adulthood with childhood abuse, interpersonal victimization, and posttraumatic stress. Child Abuse & Neglect, 45, 135-142.

Rynkiewicz, A., & Łucka, I. (2018). Autism spectrum disorder (ASD) in girls. co-occurring psychopathology. sex differences in clinical manifestation. Psychiatria Polska, 52(4), 629-639.

Schöttle, D., Briken, P., Tüscher, O., & Turner, D. (2017). Sexuality in autism: Hypersexual and paraphilic behavior in women and men with high-functioning autism spectrum disorder. Dialogues in Clinical Neuroscience, 19(4), 381-393. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/29398933

Schuck, R., Flores, R., & Fung, L. (2019). Brief report: Sex/gender differences in symptomology and camouflaging in adults with autism spectrum disorder. Journal of Autism and Developmental Disorders, 49(6), 2597-2604.

Volkers, N. (2018). Invisible girls. ASHA Leader, 23(4), 48. Retrieved from https://leader.pubs.asha.org/doi/10.1044/leader.FTR1.23042018.48

Wentz, E., Lacey, J., Waller, G., Råstam, M., Turk, J., & Gillberg, C. (2005). Childhood onset neuropsychiatric disorders in adult eating disorder patients. European Child & Adolescent Psychiatry, 14(8), 431-437.

Westwood, H., & Tchanturia, K. (2017). Autism spectrum disorder in anorexia nervosa: An updated literature review. Current Psychiatry Reports, 19(7), 41.

Wright, J. (2017). The Real Reasons Autism Rates Are Up in the U.S. Scientific America. Retrieved from https://www.scientificamerican.com/article/the-real-reasons-autism-rates-are-up-in-the-u-s/