Journal of Autism and Developmental Disorders
https://doi.org/10.1007/s10803-018-3716-5

LETTER TO THE EDITOR

Double Helix Rainbow Kids

Diane Ehrensaft[1]

Abstract
Double Helix Rainbow Kids is a letter to the editor in conjunction with the forthcoming issue on autism and gender that discusses the intersection between autism and gender expansiveness, calling on extant research, clinical observations at the UCSF Benioff Children's Hospital Child and Adolescent Gender Center and other clinics, as well as personal narratives. It alerts the reader to the importance of giving full attention to the gender stress or gender dysphoria that often accompanies autism spectrum in children, making constitutional-psychological-social links between neurodiversity and gender diversity.

Keywords Gender diversity · Neurodiversity · Autism spectrum · Gender spectrum · Gender dysphoria · Transgender children

Our gender clinic at the Child and Adolescent Gender Center at UCSF Benioff Children's Hospital has a continual flow of children and adolescents I have come to refer to as "the double helix rainbow kids." I coined this term to refer to the overlapping spectra this group of youth find themselves on—the autism spectrum and the gender spectrum. Research over the past decade has identified this phenomenon as more than just a chance occurrence, beginning with a review of patients at the Vrije Universiteit Medical Center pediatric gender clinic in the Netherlands that found a rate of autism among their patients eight times as prevalent as in the population at large (DeVries et al. 2010), with subsequent research studies replicating these findings, showing a significant correlation between autism and gender spectra in children (Strang et al. 2014; Jacobs et al. 2014; Shumer et al. 2015; Janssen et al. 2016). Although Turban and van Schalkwyk (2018) offer an insightful critique of the flaws of measurement and assessment in the extant studies, this author concludes that there yet exists an evidence-based association between children who have autistic-like features and children who are gender non-conforming in their gender identities and/or gender expressions. These research findings are corroborated by clinical observations of gender specialists both nationally and internationally. So what's gender have to do with it? And what's autism have to do with it?

The twenty-first century has been accompanied by a dramatic paradigm shift in Western concepts and practices of gender. No longer is gender considered to exist in two distinct non-overlapping boxes—male/female. The construct of the gender binary has been replaced by the image of the gender spectrum, an array of gender shades and hues of infinite variety, oscillating between the poles of masculine and feminine (Ehrensaft 2012, 2016; Hidalgo et al. 2013; Keo-Meier and Ehrensaft 2018). Even beyond that is the notion of a gender web, a three-dimensional interweaving of nature, nurture, and culture, accompanied by a fourth dimension of time, in which each individual spins together their own unique gender identity (who I am as male, female, or other) and gender expressions (how I "do" my gender—dress, appearance, activities, etc.) to arrive at their authentic gender self. Based on the interstices of constitution, socialization, and environmental context, no two people's gender webs will be exactly the same (Ehrensaft 2011, 2016). Rather than static or fixed by age six, which is what is postulated in traditional theories of gender development and constancy (Kohlberg 1966; Tyson 1986; Fast 1999), the gender web pulsates and resituates itself over the course of a life time, which explains why some people who have consistently lived in one gender for many years may gradually or suddenly arrive at an understanding that this gender is no longer a good fit (Harris 2005). We have also learned that gender does not lie between our legs, but rather between

✉ Diane Ehrensaft
dehrensaft@earthlink.net

[1] Child and Adolescent Gender Center, University of California San Francisco, 445 Bellevue Avenue, Suite 302, Oakland, CA 94610, USA

Published online: 22 August 2018

our ears—in the messages of our brain as to who we are (Diamond 2002).

This brings us to some particular idiosyncrasies of double helix rainbow individuals. Typically diagnosed early in life as being on the autism spectrum, their early childhoods may be devoid of any self-reference to gender at all. Even though their parents may have told them, "You are a boy" or "You are a girl," for the child, these markers may be empty signifiers. As one double helix rainbow transgender youth expressed, asked when they first realized they were transgender: "When I was little, I didn't think about gender at all. It was a category that had no meaning to me. I was just a person. Only when my body started to change, when I was 12, did I suddenly come to the startling, and awful, realization that I had a gender. I hated it and I certainly didn't want to be the one my body was telling me I was going to have to be."

Unpacking this youth's narrative gives us much food for thought as we read through this journal's issue on autism and gender. To understand a person who is neurodiverse, a neurotypical person needs to leave the comfort of their own social position and view from the inside out, from the neurodiverse person's perspective. With gender, the neurodiverse individual's experience may be the most revolutionary of all in de-constructing a society's fixed and unbending mores of gender. It is sometimes theorized that the reason so many people on the autism spectrum show up in gender clinics with either gender dysphoria or an asserted transgender identity is that they have failed to read the social cues that interpersonally guide and shape us in our understanding of our gender selves (Strang et al. 2018). If that is so, we might also say that the neurodiverse cohort is freed from the social constrictions and binding mores of "correct" gender roles and behavior, allowing them a far more creative gender journey, in line with the twenty-first century understanding of gender in its multiplicity and expansiveness rather than its entrapment in two designated boxes. We might also say it is not the autistic, but the neurotypical folks who are failing to read the social cues so poignantly provided by the neurodiverse community.

Both clinicians and parents have been known to interpret the insistence on a transgender or non-binary gender identity that shows up more prevalently in autistic children than in their non-autistic peers as just an obsessive phase, like so many other obsessions the autistic child passes through. It is interesting to note that, using teacher ratings on the child behavior checklist, elevated levels of obsessional interests have also been identified by Dr. Kenneth Zucker and associates as a feature of "gender referred" children at their gender clinic compared to non-referred children (Zucker et al. 2017). I do question the interpretation of these data, with the teacher ratings of obsessional interests of the gender-referred children on the child behavior checklist perhaps having more to do with a sense of urgency, a pushback toward others who are attempting to thwart their gender expressions or interests, a bias on the teachers' parts toward those gender-diverse interests, or a need on the child's part to communicate to others in an exaggerated fashion a gender identity or non-conforming gender expression rather than an indication of obsessionality. Still, the implication is that double helix rainbow kids may also have a double dosage of obsessionality.

With that said, if an obsessional *phase* was at the root of the neurodiverse children's assertion of a transgender or gender-nonbinary self,, the phase should dissipate over time, like other obsessional interests; yet it does not. Unlike the children who report no sense of gender at all in their early life, there are other autistic children who declare a transgender identity at an early age and do not back down or divert from that message. Rather than a passing phase, the gender declarations can become more insistent or urgent over time, especially if the request for acknowledgement is denied or overridden by the adults in the child's life. In lieu of "just a phase," a more salient argument for the prevalence of transgender or non-conforming gender articulations among neurodiverse children and youth is that the bundle of neurons that may shape gender messages in the brain that say "I am not the gender that matches the sex designated to me at birth" may live side-by-side or interactively with the bundle of neurons that shape autistic experience, creating a cohesive mosaic of neurodiverse/gender diverse individuality.

What we know about gender expansive/transgender experience and the experience of autism is that they both may be accompanied by a strong dose of social anxiety (Cohen-Kettenis et al. 2003; Bellini 2014); we also know that both experiences are considered to have a strong constitutional component (Rosenthal 2014, 2016; Frith and Hill 2003; Frith and Happe 2005). With that said, I would like to finish with a story about a young autistic child presenting with an inordinate amount of anxiety. This child was diagnosed with severe autism at the age of two. At age eight, the child had minimal expressive language, consisting primarily of "Mommy, Daddy, i-Pad." Brought to a gender clinic because of the child's insistence that they were not a girl, but a boy, the only full sentence uttered by the child in the initial exam, in response to the parents' reference to their child as "she," was a loud, adamant, "Don't say she, say HE." The child made no eye contact, shied from any physical contact, and anxiously hummed and rocked. After several months of mental health treatment with a gender specialist who also had experience with autism, the family, with the therapist's support, allowed their child to begin living full-time as the boy the child consistently asserted they were. Sometime after that, the child returned for their follow-up visit at the gender clinic. The clinic team was astounded to discover a child who strode into the clinic, shook hands with the team, made eye contact, and began talking in full, although truncated, sentences. The stunning observation leaves us with a

question to ponder, "Could gender be an alleviator for the stressors of autism?" Not every person with a diagnosis of autism will be gender expansive, but it might behoove us to find that out, and more generally, to remind ourselves that gender is a fluid concept that may be experienced and expressed differently, depending on whether one is neurodiverse or neurotypical.

Compliance with Ethical Standards

Conflict of interest I have no conflict of interest.

Research Involving Human and Animal Participants This article does not contain any studies with human participants performed by the author.

References

Bellini, S. (2014). Social skill deficits a anxiety in high-functioning adolesecents with autism spectrum disorder. *Focus on Autism and Other Developmental Disabilities, 19:2*, 78–86.

Cohen-Kettenis, P. T., Owen, A., Kaijser, V. G., Bradley, S. J., & Zucker, K. J. (2003). Demographic characteristics, social competence, and behavior problems in children with gender identity disorder: A cross-national cross-clinic comparative analysis. *Journal of Abnormal Child Psychology, 31*, 41–53.

DeVries, A. L., Noens, I. L., Xohen-Kettenis, P. T., van Berckalaer-Onnes, I. A., & Doreleijers, T. A. (2010). Atuism spectrum disorder in gender dysphoric children and adolescents. *Journal of Autism and Developmental Disorders, 40*, 930–936.

Diamond, M. (2002). Sex and gender are different: Sexual identity and gender identity are different. *Clinical Child Psychology & Psychiatry July, 7*(3), 320–334.

Ehrensaft, D. (2011). *Gender born, gender made*. New York: The Experiment.

Ehrensaft, D. (2012). From gender Identity disorder to gender identity creativity: True gender self child therapy. *Journal of Homosexuality, 59*(3), 337–356.

Ehrensaft, D. (2016). *The gender creative child*. New York: The Experiment.

Fast, I. (1999). Aspects of core gender identity. *Psychoanalytic Dialogues, 9*, 633–662.

Frith, U., & Happe, F. (2005). Autism spectrum disorder. *Current Biology, 15*, 19:R786–790.

Frith, U., & Hill, E. L. (2003). *Autism: Mind and brain*. Oxford: Oxford University Press.

Harris, A. (2005). *Gender as soft assembly*. Hillsdale: The Analytic Press.

Hidalgo, M. A., Ehrensaft, D., Tishelman, A. C., Clark, L. F., Garofalo, R., Rosenthal, S. M., et al. (2013). The gender affirmative model: What we know and what we aim to learn. *Human Development, 56*, 285–290.

Jacobs, L. A., Rachlin, K., Erickson-Schroth, L., & Janssen, A. (2014). Gender dysphoria and co-occurring autism spectrum disorders: Review, case examples, and treatment considerations. *LGBT Health, 1*(4), 277–282. https://doi.org/10.1089/lgbt.2013.0045.

Janssen, A., Huang, H., & Duncan, C. (2016). Gender variance among youth with autism spectrum disorders: A retrospective chart review. *Transgender Health, 1*, 63–68.

Keo-Meier, C., & Ehrensaft, D. (Eds.). (2018). *The Gender affirmative model: An interdisciplinary approach to supporting transgender and gender expansive children*. Washington, DC: APA Publications.

Kohlberg, L. (1966). A cognitive-developmental analysis of children's sex- role concepts and attitudes. In E. E. Maccody (Ed.), *The development of sex differences*. Stanford: Stanford University Press.

Rosenthal, S. M. (2014). Approach to the patient: Transgender youth: Endocrine considerations. *The Journal of Clinical Endocrinology & Metabolism, 99*, 4379–4389.

Rosenthal, S. M. (2016). Transgender youth: Current concepts. *Annals of Pediatric Endocrinology & Metabolism, 21*(4), 185–192.

Shumer, D., Reisner, S., Edwards-Leeper, L., & Tishelman, A. (2015). Evaluation of Asperger syndrome in youth presenting to a gender dysphoria clinic. *LGBT Health*. https://doi.org/10.1089/lgbt.2015.0070.

Strang, J. F., Kenworthy, L., Dominska, A., Sokoloff, J., Kenealy, L. E., Berl, M., et al. (2014). Increased gender variance in autism spectrum disorders and attention deficit hyperactivity disorder. *Archives of Sexual Behavior*. https://doi.org/10.1007/s10508-014-0285-3.

Strang, J. F., Meagher, H., Kenworthy, L., de Vries, A. L. C., Menvielle, M., Leibowitz, S., et al. (2018). Initial clinical guidelines for co-occurring autism spectrum disorder and gender dysphoria or incongruence in adolescents. *Journal of Clinical Child & Adolescent Psychology, 47*(1), 105–115. https://doi.org/10.1080/15374416.2016.1228462.

Turban, J. L., & van Schalkwyk, G. I. (2018). "Gender dysphoria" and autism spectrum disorder: Is the link real? *Journal of the American Academy of Child & Adolescent Psychiatry, 57*(1), 8–9.

Tyson, P. (1986). Psychogenesis: The early development of gender identity. *Pschoanalytic Quarterly, 55*, 691–693.

Zucker, K. J., Nabbijohn, A. N., Santarossa, A., Wood, H., Bradley, S. J., Matthews, J., et al. (2017). Intense/obsessional interests in children with gender dysphoria: A cross-validation study using the Teacher's Report Form. *Child and Adolescent Psychiatry and Mental Health, 11*(1), 51.