LGBT Health
Volume 2, Number 00, 2014

DOI: 10.1089/lgbt.2013.0045

ORIGINAL ARTICLE

Gender Dysphoria and Co-Occurring Autism Spectrum Disorders: Review, Case Examples, and Treatment Considerations

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Abstract

Transgender and gender nonconforming people who fulfill diagnostic criteria for autism spectrum disorders (ASDs) often present to mental health providers with concerns that are distinct from those without ASDs. Gender Dysphoria (GD) and ASDs have been proposed to share etiologic mechanisms and there is evidence that ASDs may be more common in transgender and gender nonconforming people.

Purpose: To explore the impact of ASD characteristics on individual gender identity, expression, and the process of psychotherapy.

Method: The authors present two case studies of high-functioning individuals with ASD and GD diagnoses.

Results: The limited ability to articulate an inner experience, deficits in Theory of Mind (ToM), along with the intolerance of ambiguity as a manifestation of the cognitive rigidity characteristic of ASDs, may present special difficulties to gender identity formation and consolidation and create challenges in psychotherapy.

Conclusions: The authors suggest that ASDs do not preclude gender transition and that individuals with high-functioning ASDs are capable of making informed decisions regarding their medical care and life choices. The authors also consider possible challenges and suggest techniques for assisting such clients in exploring their gender identities.

Key words: Asperger's, autism, gender dysphoria, gender identity, gender identity disorder, gender nonconforming, Intolerance of Ambiguity, Theory of Mind, transgender, transsexual.

Introduction

TRANSGENDER AND GENDER nonconforming individuals who fulfill criteria for autism spectrum disorders (ASDs) represent a unique population. ASDs are characterized by difficulty with social interaction and communication as well as restricted, repetitive patterns of behavior. Approximately 1% of the population is estimated to meet criteria for ASDs, and the prevalence appears to be growing. Rates in people assigned male at birth are higher than those in people assigned female.[1,2,3]

The DSM-5 diagnosis of Gender Dysphoria (GD), formerly known as Gender Identity Disorder (GID) in the DSM-IV, describes people who experience "a marked incongruence between [their] experienced/expressed gender and assigned gender."[4] The DSM-5 cites prevalence rates for GD of 0.005% to 0.014% for those assigned male at birth and 0.002% to 0.003% for those assigned female at birth.[4] However, the lack of agreed-upon definitions of transgender identities and the difficulty accessing the population for study make any estimates speculative.[5]

GD and ASDs share several characteristics. Both are applied to highly diverse populations. Although a diagnosis of ASD requires that symptoms be present in childhood and a diagnosis of GD does not, both are often evident in childhood. Biological factors have been proposed to influence the expression of both ASDs and GD, with researchers speculating on the role of genetics, prenatal intrauterine hormones, and environmental toxins.[6,7] Both populations also have vocal consumer lobby groups that advocate against pathologizing what they understand to be natural variants of human experience.

There are a few studies that investigate the co-occurrence of ASDs and GD, some suggesting higher rates of co-occurrence than would be expected by chance. A study by de Vries *et al*[8] looked at 204 children and adolescents presenting for treatment at the Gender Identity Clinic of the VU University Medical Centre in Amsterdam between 2004 and 2007. Results

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indicated that children and adolescents who fulfilled the DSM-IV-TR criteria for GID (as this study was conducted prior to the release of the DSM5) had a much higher incidence of ASDs than the general population (7.8% versus 1%). Twelve of 115 (10.4%) assigned male at birth met the criteria for ASD versus only four of 89 (4.5%) assigned female at birth. The incidence of ASD was much higher in those who fulfilled the criteria for a DSM-IV-TR diagnosis of Gender Identity Disorder Not Otherwise Specified (GID NOS) than for those who fulfilled the criteria for GID, suggesting that children and adolescents with GD who also have ASDs may present differently from those with GD who do not have ASDs.

Using the Autism Quotient (AQ) self-report questionnaire, Pasterski *et al*[9] investigated the frequency of ASDs in a group of ninety-one adults being treated in a private gender clinic in London, all of who had been given a diagnosis of GD/GID. In this sample, the prevalence of ASD traits was 5.5% (7.1% Female-to-Male [FTM], 4.8% Male-to-Female [MTF]), with no significant difference between MTFs and FTMs. Contrastingly, in a study by Jones *et al*,[10] FTM-identified adults had significantly higher AQ scores than MTFs and non-transgender men. AQ scores for MTFs were not significantly different from the scores of non-transgender men and women. In a Levi *et al*[11] study of FTMs only, FTMs scored significantly higher than either control males or females on the AQ, particularly on the social skills subscale. Levi *et al* suggest the possibility that the social skills subscale of the AQ may be influenced by an individual's transgender experience in ways that require special consideration when interpreting these results: "Because transgender people experience very high rates of prejudice and discrimination...their aversion to social situations may be a self-protective response, thus artificially inflating their levels of autistic traits."

There is no agreed-upon etiology for either ASD or GD, and all hypotheses are controversial. Biological factors (e.g. genetic predisposition, intrauterine hormones, and impact of environmental toxins), social factors (e.g. differential treatment of boys and girls, relationships with parents and peers), and psychological factors (e.g. cognitive issues complicating the formation of gender identity) have all been proposed with the understanding that there is likely a multifactorial etiology for both ASDs and GD.[12,13]

GD and ASDs have also been linked based on social and psychological theories. Those with ASDs may show an inability to empathize with others and have difficulties with Theory of Mind (ToM), which "describes the ability of the mind of the developing child to create an (image) of the emotional state and experience and intent of another."[14] ToM has implications for the development of gender identity. Basic gender identity begins to develop within the first three years of life, and children learn from the people in their environment about the meaning and expression of gender. Pasterski *et al*[9] suggested that children with ASDs may experience a disturbed sense of self and that there may be differences in how children with ASDs develop their sense of gender as it relates to others. Similarly, gender-nonconforming children may find themselves unable to fit in with their assigned-gender peer group and many are bullied in response to their social awkwardness, which can then impact their development of social skills. The causes and consequences of both GD and ASDs appear to have a transactional relationship and influence the experiences of individuals seeking treatment with both GD and an ASD.

Whatever factors lead to the development of GD and ASDs, the two interact in particular ways in individuals who meet the criteria for both. Such individuals frequently have preoccupations that shape their experiences, which may extend to their gender identity issues.[15] Also; the formation of a clear gender identity may depend upon cognitive, social, and communication skills, which can be impaired in people with ASDs. Abelson *et al*[16] found that children with more profound cognitive deficits had trouble establishing and articulating a consistent gender identity. In another study, researchers compared children with ASDs to developmentally delayed children matched for age and verbal ability and found that the children with ASDs spoke less frequently and with less depth about topics related to their self-concept.[17]

To discuss the complexities of such cases, we present studies of two individuals who fulfill the diagnostic criteria for GD/GID and ASDs, and who provided consent to have their cases included in this article. While most of the literature on co-occurrence of ASDs and GD focuses on children and individuals on the low- and mid-functioning end of the ASD spectrum, both individuals addressed here are young adults and would be considered in the high-functioning range of ASD. Each of these individuals exhibits features such as impaired ToM, an intolerance of ambiguity which could be interpreted as a manifestation of cognitive rigidity, a difficulty articulating their inner experience of gender, and persistent deficits in social communication and interaction. The cases represent two different approaches: The first client was seen by a transgender and genderqueer-identified Licensed Clinical Social Worker in an outpatient mental health group practice; The second client was seen by a psychiatry resident at a public clinic with supervision from an Attending Psychiatrist. In addition, both highlight some of the challenges for clinicians, even those accustomed to working with transgender and gender nonconforming individuals.

Case 1: JA

JA is a 29 year old, Caucasian individual, assigned male at birth, from a middle class family in a suburb of New York City who sheepishly approached one of the authors at a large transgender event, asking for a business card then shying away. JA and the author later spoke on the phone in a stilted conversation. At the intake, JA presented as a stocky male in cargo shorts, a generic sports jersey and sneakers, with wavy hair to his shoulders and an unkempt, heavy beard. He made little eye contact and wrote few words on intake forms.

(Note: While those transitioning from male to female often prefer a female name and pronouns, JA has requested the author use JA's birth name and male pronouns for the time being.)

Social relationships and communication

Many of JA's characteristics mirror those of countless other individuals with high-functioning ASDs, and clearly evident are the Criterion A characteristics of the DSM-5 diagnosis of ASD, primarily difficulties in social relationships and communication. Even well into treatment he makes little eye contact and often gives the impression of being aloof. Additionally, JA reports a lifelong pattern of few social connections, and what connections he has been able to maintain have been awkward and distant. He had few if any actual

friends at school, and played with other children primarily out of obligation. Now almost all his friends are via the Internet, and they share rare in-person meetings when absolutely necessary. His social awkwardness is apparent also with close family: Though he lives with his mother and brother, he reports that they barely talk.

JA also had severe difficulties in education due to his inability to communicate his thoughts. Though he is clearly intelligent and reports having been attentive, he states he was terrified of questions in class and that coursework was torturous. When presented with an open-ended writing task, he froze, leading him to submit assignments that were incomplete or to miss deadlines altogether. JA barely graduated high school and attended a few college courses before dropping out. JA never underwent screening nor was he diagnosed with ASD or Asperger's Syndrome. Given the lack of awareness and the few appropriate educational services of the time, JA's needs went unaddressed. To date, JA has still not undergone comprehensive testing due to his lack of health insurance, and he has declined any in-office assessment tools. In addition, though the clinician and JA have discussed inviting his mother to therapy sessions which might reveal more, it has not happened to date due to JA's discomfort.

Intolerance of Ambiguity

JA demonstrates the rigidity common to individuals with individuals with ASDs and significant discomfort with ambiguity. His unease is apparent both on the intake forms and in sessions. JA demonstrates an almost obsessive need to parse sentences and meanings, and it is sometimes difficult not to become sidetracked into debates of semantics and the language choices of the therapist, of JA himself, or within the broader culture. This insistence on precision is both a defense mechanism and a relational technique. JA knows no other way to speak with others than through debate, and he plainly derives pleasure and some measure of connection from these interactions. Simultaneously, as JA finds the ambiguity inherent in everyday conversation to be threatening, his focus on precision maintains for him a measure of clarity and safety.

Theory of Mind

JA demonstrates significant impairment around ToM. He has difficulty interpreting the thoughts and emotional states of others, and is correspondingly unable to understand how others might perceive the thoughts and emotional states of JA himself. For instance, JA recently told his clinician that he wanted to contact his medical provider to request a change in dosage. He intellectually recognized that more was necessary in the email than simply stating his request, but had no thoughts on what to say otherwise. It became clear that it was beyond him to understand that his email would prompt questions in the mind of his provider or that his provider might have a curiosity to know the rationale behind JA's request.

The development of transgender identity

JA came to his transgender identity at age 28. He reports that, after a conversation in which JA spoke openly about his feelings, an online transgender friend said, "It sounds like you might be trans." Not unlike many others who identify as transgender, JA reports having needed that "permission" but that it neatly described a sense of self he had been unable to consider before.

JA met the criteria for the DSM-IV-TR diagnosis of GID. (Intake was prior to the use of the DSM5). From the outset he reported a strong desire to be female and a sense that he truly *was* female, as well as significant distress about this aspect of his identity. Yet despite his certainty, JA cannot articulate a clear vision of the self as female whether referring to a manner of dress, body, forms of social interaction, or an internal identity. He states that he wants to "be female," by which he seems to be referencing a heteronormatively female body and presentation of self, yet this remains little more than a shadow of an image. The most he can offer is a choice of name, one modeled after a female online roleplay avatar he periodically assumes. He has very little connection to the transgender and gender nonconforming community even online, and unfortunately, JA's social difficulties prevent him from attending support groups.

JA has independently taken steps to initiate hormone care and laser treatments to remove his facial hair. Two months into therapy JA's beard was suddenly absent. Like many transgender women before coming out, JA had maintained this unambiguously male trait, and removing it was a physical act paralleling an internal readiness to explore the possibility of a self as female. However, for JA the laser treatments were less about an inner experience of dysphoria than a social phobia and a need to conform to social norms. He understood that women do not generally have beards, and that he would attract unwanted attention if he began to transition while retaining his beard. But more importantly, laser treatments became imperative at the very beginning so as to sooner facilitate being able to see himself as female, and thereby, less ambiguity.

To date, JA has yet to begin crossdressing or presenting as "femme," perhaps for similar reasons: The longer he remains on hormones and continues other more subtle transition steps in private, the more he can delay having to openly confront the ambiguity of his situation and his need to gradually develop fluency in presenting as a woman, though perhaps the more prepared he will be if he ultimately takes such steps.

Similarly, his continued insistence on male pronouns evidences this same rigidity and need for clarity. He sees someone male in the mirror, so he would interpret the use of any other pronouns—even ones based on an internal desire—as an inconsistency.

JA's difficulty with ambiguity is apparent in how he perceives others as well. He recognizes that it is custom to refer to transgender and gender nonconforming individuals by their desired gender, regardless of their appearance. But while at a large transgender event, being surrounded by countless nonbinary presentations of gender—people androgynous, genderqueer, or otherwise not matching heteronormative stereotypes, people who did not "pass," or people whose presentations would seem to have contradicted their pronoun choices—left him overwhelmed with anxiety.

Strengths

JA does have strengths. His intelligence and critical thinking have enabled him to research the narratives of others and the various treatments, thereby becoming an informed consumer. He disclosed his identity to his mother and to some in the very small community of friends he sees offline, despite his concerns about ridicule and stigma. He demonstrates an

ability to persevere and be methodical toward concrete goals, when motivated. He comes regularly to therapy consistently despite his discomfort with intimate conversation, and he attended the transgender event where he met the clinician, as well as two other smaller events since.

Case 2: MZ

MZ is an 18-year-old, first generation Chinese-American immigrant, male-assigned-at-birth but identifying as female who was seen at a children's psychiatric clinic at a large New York City public hospital. MZ first came to treatment at age 16 at the behest of her father in order to "cure MZ" of "his" transgender identity.

MZ presented as quite shy and introverted though still able to separate from her parents, walking to the office with slumped shoulders and a slow, awkward gait. She made very little eye contact and had difficulty explaining her goals for the evaluation. With more direct questioning, MZ was able to express that she had always felt quite feminine from an early age, preferring female friends as well as social and relational play over sports and physical contact, and that she never felt comfortable around male peers. This difficulty extended beyond her gender identity, as she struggled to understand others' points of view and had primary deficits in social communication, unable to comprehend the emotional content of her friends' speech and being lost when sarcasm was used. She longed for friendships but found them difficult to maintain.

Growing up, MZ met all developmental milestones, including major language milestones, though she was frequently reticent to speak. MZ had a series of intense restricted interests, including anime, which became a passion. Her social relationships mainly focused on information exchange around her interests, and she rarely seemed curious to engage around her peers' experiences. Puberty was extremely unsettling but during this period she sought out connections via chatrooms and photo sharing websites, and it was through this online exploration that she began to appreciate that her feelings were similar to those who identified as transgender. In looking back, she recognized she had always chosen female avatars and names in virtual forums as a means to express this sense of self, and began to acknowledge and then accept an identity as transgender.

But she was distressed about how to manage this new understanding. She withdrew further from her personal relationships, including those with family members, and school functioning began to decline. She finally revealed her female gender identity to her parents after continued confrontations. Though concerned, her parents' primary wish was to help their "son" embrace "his" male gender.

After the evaluation, MZ was given the DSM-IV-TR diagnosis of GID. (The intake was prior to the introduction of the DSM5.) An ASD was also suspected due to her primary deficits in social communication and her history of restrictive, repetitive patterns of interests. Initially the entire family attended sessions together and much of the content focused on psychoeducation about transgender issues. As MZ began to articulate her experience and the impact it had on her functioning, and as her parents began to understand that accepting MZ's identity would lead to improvements in her well-being, the family started to support her transition.

Treatment course

Though MZ arrived consistently on time, it was a struggle for the clinician to elicit much spontaneous speech. MZ strained to answer open-ended questions and long stretches of each session passed in complete silence. At first, her distance was attributed to ambivalence about her transgender identity, but with more direct questioning it became clear that she did have a persistent and unwavering female gender identity and was longing to transition from male to female. For MZ, the end goal was unambiguous: She wished to live her life full-time as a woman, to have cross-sex hormones, breast augmentation, and vaginoplasty. The difficulty was in tolerating the multiple steps between her wish and the reality of transition.

Therapy gained traction when MZ acknowledged that her reticence to speak was in part due to discomfort with a voice she felt was too masculine. Once able to articulate her anxiety, around six months into treatment, she could openly discuss the mismatch between how she felt about herself and her external appearance, and while therapy next ostensibly focused on the more practical matters of the transition, with this improved communication MZ was able to relax and more openly engage with her therapist and with family, and began to improve her school performance.

Role of Autism Spectrum Disorder in the treatment

It became clear that MZ met criteria for a mild autism spectrum disorder. Her fixations on anime and other preoccupations were quite intense. Throughout her life she avoided intimate contact and the touch of others. Therapy sessions began with her being awkward around typical social niceties, and she lacked the ability to engage in normal back-and-forth conversation. Even after opening up about her discomfort with her voice, her speech was still pedantic and she had difficulty with prosodic and pragmatic speech. And she maintained relationships almost exclusively because of shared interests in online activities.

MZ's most notable challenge was in understanding how her thoughts about herself were communicated (or miscommunicated) to others. This was most easily seen in her difficulty with the practicalities of transition. Because MZ now understood her identity to be female, she assumed her peers would automatically adopt the same understanding. MZ is a tall and thin adolescent, dressing mostly in pants and baggy anime-themed t-shirts, with long hair and meticulously manicured nails but also a touch of facial hair and a prominent Adam's apple. Though "internally transitioned" nothing had altered in her appearance or demeanor, and she expressed surprise that no one noticed the change. It became clear that she suffered an impaired ToM: She was unable to appreciate that others might see her differently than she saw herself, or that others would have a need to gradually come to terms with MZ's new identity.

Similar challenges occurred when she expressed her goal to start college as a woman. With some assistance she began cross-sex hormones, but it did not occur to her to inform the institution that she was transitioning, and when assigned to a male floor in the dorm, she was unable to comprehend what a potential male roommate might have felt about sharing a room with someone actively changing their gender.

The ambiguity of transition was also something MZ could not tolerate. She had reconciled her identity as a transgender woman but suffered severe anxiety around the possibility of a transitional period during which she would self-identify as a woman but likely not be read as one in her appearance. For MZ, the primary issue of transition was her self-perception: While she cared how others saw her, she initially made very little effort toward visible changes. Even when encouraged to openly explore more feminine dress and appearance, she did not press her parents to buy her the clothes needed. She hoped a certain point would be reached when she might feel comfortable with her speech and body, at which time she would change her outward presentation to female.

She graduated from high school and began her social transition the summer before matriculation. During therapy sessions, she contacted the school to find a support group and to have her room switched to a single room on the women's floor. By the time she left for college, she was consistently referring to herself by female pronouns and was beginning to live publicly as female. She still had difficulty tolerating ambiguity and ambivalence, and appreciating the thoughts and internal states of others, but had gained some initial understanding about where this difficulty came from.

Discussion

Both cases demonstrate the complicated interplay between ASDs and GD, especially with regard to ToM and the intolerance of ambiguity. Many of the issues are not uncommon in transgender-identified individuals but could be heightened in those with ASDs, while other concerns may be unique to this population.

Diagnosis

While both clients clearly meet the DSM-5 Criterion A characteristics of ASD, the Criterion B characteristics are present but less overt. Neither client demonstrates repetitive motor movements or echolalia. MZ had a history of some sterotyped movement in childhood (toe walking). JA is undeniably more comfortable in situations with predictable routines, and demonstrates difficulties in tolerating transitions. JA reports no highly-restricted interests while MZ has had an intense fixation on anime. And both are very sensitive to external stimulation including touch and are easily overwhelmed in groups. However, both clients demonstrated characteristics early in development per Criterion C, and in neither client can the symptoms be better explained by another condition per Criterion D.

Theory of Mind

Much of the treatment has been no different from how a clinician might work with any client with a similar level of an ASD around social relationships and ToM. Rather than beginning sessions with open-ended questions like "How are you?" or "How was your week?" it has been crucial to match conversation styles to those of the client, and to use more concrete starters such as "How was the traffic?" or "The weather is definitely getting colder these days."

Additionally, the clients have benefited from discussions about general social awareness and understanding the thoughts and feelings of others. For instance, toward the end of a recent session with JA, the clinician returned her feet from the coffee table to the floor, straightened in her chair, and said her customary, "We're going to have to wrap it up in a minute." Though most clients are able to correctly interpret this verbal and nonverbal message, and use this awareness to internally "close themselves up" at the end of the session, JA expressed confusion. "I don't know what it means when you say that. Does that mean its time to stand up and pay?" The clinician validated JA's ability to express his confusion, and JA's question permitted a discussion on the nature of interpersonal cues.

Similarly, MZ's difficulties recognizing the need for disclosure to her friends and to the college again highlight the possible role of the clinician in helping clients develop coping mechanisms. The situation revealed to MZ that just changing her inner identity was insufficient, that she would need to let others around her know about her identity in order have them interact with her in desired ways. JA and MZ may have a limited ability to develop ToM or to intuit the thoughts and emotional states of others, but through helping them understand their inability to understand, hopefully they can develop an intellectual awareness and rules for behavior which might improve their social interactions and help them get their needs met.

Intolerance of Ambiguity as a Rigidity of Classification

The extreme discomfort often demonstrated by such clients when exposed to issues outside a clear gender binary could be understood as a manifestation of the cognitive rigidity commonly seen in individuals with ASDs: that is, as a rigidity of classification in which there exist only two gender categories, "male" and "female," and where each person must be neatly assigned to one or the other. When the categories are problematized, or when such clients encounter individuals who do not conform (such as people who are genderqueer, nonbinary, individuals not passing, or those otherwise not matching societal gender norms), it can conflict with this internal schema and cause intense unease.

The reality that transition from one heteronormative gender expression to another (i.e. from a presentation stereotypically "male" to one stereotypically "female" or vice versa) involves an awkward, interim period of non-conformity and lack of fluency can also be a source of great fear. For clients with co-occurring GD and ASDs, the idea that they might be "in the middle" and not passing (short or long term) can terrify them, partly for the attention they might receive, attention they are unable to tolerate even at the best of times, and partly because of the indeterminate state in which they would find themselves: the inability to easily categorize their own gender.

Self-Determination

JA and MZ have demonstrated the intelligence and self-awareness necessary to make informed choices about their lives and healthcare, even including those about irreversible medical treatments, in accordance with the World Professional Association for Transgender Health's *Standards of Care for the Health of Transgender, Transsexual, and Gender Nonconforming People, Version 7*.[18] These flexible treatment guidelines recommend that prior to the initiation of hormones or surgery individuals have persistent, well-documented GD; possess the capacity to make a fully informed decision and to

give consent for treatment; be the age of majority in a given country; and have any significant medical or mental health concerns under good control (Appendix C., p. 104). In both clients, these criteria are clearly met.

Before and after both clients initiated hormone therapy, the clinicians aided each to develop realistic understandings of how the interventions might affect their bodies, social relationships, and identities. While neither JA nor MZ has yet requested referral toward gender reassignment surgery, the authors see no inherent, insurmountable obstacle; should JA or MZ wish to pursue such procedures, it will continue to be the clinician's role to help the clients understand their options and determine how they wish to proceed, then afterwards to help them integrate the changes into their sense of self. In firmly avowing their transgender identities and in understanding the consequences of such decisions, high-functioning clients like JA and MZ retain the right to self-determination.

Implications for Treatment

How do we assist individuals with high-functioning ASDs explore their options for gender transition despite their difficulty in articulating an inner experience or in understanding self and other? Gender is in large part constructed through the relationship between individual and society. Most transgender or gender-nonconforming clients present with at least a nascent vision of themselves as their desired gender and can describe it through history, fantasy, and interpersonal relationships. But it may appear very differently in clients with co-occurring autism spectrum disorders and gender dysphoria.

In the cases we examined, there have been discussions about the social norms around gender, as well as of the relationship between the clients' difficulties with social functioning and their transgender identities. Other conversations have examined ways they can develop the beginnings of competency in their desired gender and coping mechanisms for the time when their transitions make them more visible.

In client-centered treatment, the clinician "meets the client where they are at," working flexibly and adapting techniques to meet the needs and styles of each individual, respecting each client as they move at their own pace, at times either rapid or drawn out compared to others. Such clients may only have a limited understanding of the richness of gender in others or in themselves, and a limited ability to speak about their internal world. It is the role of the clinician to work within the clients' framework, to help them navigate the real world even given the limited understandings they may have. Hopefully through these nonjudgmental discussions, such clients may become somewhat more able to appreciate the complexity of gender in themselves and in others, to live happier lives, and ultimately, to grow.

Author Disclosure Statement

No competing financial interests exist.

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