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## Autism and Gender Dysphoria: Searching for the Holy Grail

**To the Editor:** Empirical reports<sup>1-3</sup> indicate that gender dysphoria is overrepresented in the autism spectrum disorder (ASD) population. Pasterski et al<sup>1</sup> found that 7.1% of women and 4.7% of men with gender dysphoria met diagnostic criteria for ASD on the Autism Spectrum Quotient. Strang et al<sup>2</sup> measured gender variance and found it to be 7.59 times higher in the ASD population than in the 2 nonreferred comparison groups in the study. Bejerot and Eriksson<sup>3</sup> found a gender-atypical pattern in 50 adults with ASD compared to 53 typically developing individuals. Here, I attempt to speculate on the link between ASD and gender dysphoria.

Hormonal factors might be at play. Lower levels of the sexually dimorphic sex hormone, anti-Müllerian hormone, have been tied to increased ASD symptoms in males.<sup>4</sup> Anti-Müllerian hormone is thought to impact the masculinization or defeminization of the male fetus.<sup>5</sup> Moreover, the extreme male brain theory of ASD<sup>6</sup> posits that fetal testosterone (fT) is a strong candidate for contributing to sexually dimorphic cognition and behavior and might present as a risk factor for conditions characterized by social impairments such as ASD. High levels of fT are positively correlated with autistic traits and masculinizing neural development.<sup>7</sup> Similarly, evidence suggests that excess prenatal testosterone exposure increases the odds of a homosexual orientation in men.<sup>8</sup> Studies looking into somatic features, eg, finger length ratios<sup>9</sup> and male genitalia proportions,<sup>10</sup> tend to support this notion.

Furthermore, Parker and Asher<sup>11</sup> have shown that early positive social interactions are crucial to the development of higher-order social skills, which are central to the development of gender role and sexuality. Given social deficits in ASD, establishment of gender identity could become complex. Theory of mind deficits in ASD might further explain the inherent difficulty to view oneself as belonging to a gender group.

At times, gender dysphoria in ASD is “counterfeit.” Sensory issues (eg, haptic) might derive gender dysphoria behavior. A male might feel more comfortable in glittery and silky fabrics for instance. Gender relies on semantic factors; hence, language delay in childhood in ASD might interfere with a developing sense of

gender-related discourse and behavior. Also, gender dysphoria might be part of the restricted and repetitive behaviors seen in ASD. Thus, unusual preoccupation with transvestism, for instance, might be a reflection of circumscribed interests, preoccupations, or attachments in ASD rather than bona fide gender dysphoria.

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