

# Virtual Mentor

American Medical Association Journal of Ethics  
August 2010, Volume 12, Number 8: 645-649.

## JOURNAL DISCUSSION

### Suppression of Puberty in Transgender Children

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**Giordano S. Lives in a chiaroscuro. Should we suspend the puberty of children with gender identity disorder? *J Med Ethics*. 2008;34(8):580-584.**

As society becomes more accepting of lesbian, gay, bisexual, and transgender (LGBT) people, the needs of this group—notably, specific health care needs that are underrecognized by the medical establishment, underrepresented in research, and underaddressed in medical training [1]—are becoming more visible. One of the conditions that can affect members of this community is gender identity disorder (GID), defined by “a strong and persistent cross-gender identification” and “persistent discomfort with his or her own sex or sense of inappropriateness in the gender role of that sex” that causes “clinically significant distress or impairment” [2]. Current treatment of GID involves both hormonal and surgical modalities and has been well defined for adult patients [3]. Although the signs can be seen in children [2], there is disagreement about the appropriateness of treatment in minors [4]. The treatment option for the pediatric population entails suppression of puberty using exogenous hormones before the patient significantly develops the secondary sex characteristics of his or her biological sex [4], but it is still experimental, and some practitioners question the ethics and safety of this treatment strategy.

In “Lives in a Chiaroscuro: Should We Suspend the Puberty of Children with Gender Identity Disorder?” Simona Giordano discusses the controversy surrounding suppression of puberty in children with GID and cogently presents the evidence for and against this treatment option. Giordano tackles areas of uncertainty about this treatment; namely, what are the risks of suppressing puberty in an otherwise normally developing child? Is it the role of the health care system to interfere in this process? Are children and adolescents able to make informed choices about their care? Answers to these questions must inform the treatment protocol for pediatric GID. After an extensive review of the literature, Giordano argues that “suppression of puberty should be offered when the long-term consequences of delaying treatment are likely to be worse than the likely long-term consequences of treatment” [5].

To appreciate the ethical questions posed by treatment of pediatric GID, it helps to understand the extant treatment protocol for adult patients. Medical/surgical and psychological interventions are considered to be necessary components of effective management. The goals of medical and surgical treatments are to align the patient’s physical appearance with his or her internal gender identity. Medical treatment involves the administration of cross-sex hormones (i.e., administering estrogen to a

biological male or testosterone to a biological female). Surgical interventions (i.e., mastectomies, salphingo-oophorectomies/hysterectomy, and the creation of a neophallus in female-to-male transsexuals and orchiectomies with the creation of a neovagina in male-to-female transsexuals) permanently alter the patient's body. Patients may choose to undergo only medical treatment or both medical and surgical interventions. Importantly, regular psychotherapy is coupled with medical/surgical treatment as a means of helping patients navigate the psychological components of this disorder.

In the prepubertal population, there is an additional treatment possibility: the suppression of puberty using continuous gonadotropin-releasing hormone (GnRH) agonists, which have the effect of blocking the release of follicle stimulating hormone (FSH) and luteinizing hormone (LH) from the pituitary gland. This, in turn, prevents the secretion of endogenous sex hormones (testosterone and estrogen) from the gonads, halting the progression of puberty, including the development of secondary sex characteristics. During this time, patients are medically monitored and receive regular psychotherapy. Giordano says that the fundamental benefit of this treatment strategy is that “children gain time to reflect over their gender identity, without becoming trapped in a body that is experienced as alien” [5]. The bulk of this reflective process occurs with the help of a psychotherapist, who oftentimes asks the child to have a real-life experience living as the other gender (i.e., in dress and behavior) to help determine whether or not he or she desires the transition [6].

The importance of preventing development of secondary sex characteristics during this period cannot be overstated. Once these children, who are already experiencing considerable distress over their gender incongruence, undergo the pubertal development of the “wrong” sex, their psychological well-being deteriorates significantly, and many develop depression and suicidal ideation [7]. They can experience alienation and harassment at school if they are unable to participate in cross-gender activities or use cross-sex restrooms. They can be bullied and abused. Such circumstances can lead these youths to drop out of school [8] and develop significant psychiatric morbidity [9]. Because these risks can be so great, the need for medical and psychological intervention is paramount. Suppressing puberty and allowing children the opportunity to explore their true gender identities decreases their risk for suicide [10].

A child who decides to change his or her sex then starts cross-sex hormones. Because puberty was arrested before development of secondary sex characteristics, the child will achieve a “more normal and satisfactory appearance” after the transition [5] than if he or she had waited until adulthood, in which case many irreversible features (e.g., height) or solely surgically reversible features (e.g., breast and genital development) would have formed. Giordano also believes children who have been treated before puberty have better psychosocial outcomes, such as greater comfort with their physical selves, better social adjustment, and fewer psychiatric complications. Should they decide not to change sex, “puberty suppressant drugs can be withheld and development restarts as normal” [5].

Giordano then turns to concerns about the safety of what is still an experimental treatment. First, are we putting children at risk for short- or long-term adverse events? It is worthwhile to note that exogenous continuous GnRH administration is the standard of care for the treatment of precocious puberty, and its safety and efficacy have been extensively studied [11]. Children with GID can be said to have another type of incorrect puberty and therefore qualify for GnRH agonist treatment. Research has shown that suppression of puberty is safe, causing minimal side effects [6]. If parents become concerned about this treatment, they can safely and easily stop treatment and allow development to restart normally in the biological sex. Though, as one prominent British physician points out, the fact of having given a child GnRH agonists is not reversible (i.e., we cannot make it “un-happen”); nonetheless, the effects of the treatment are both “temporary and reversible” [12].

Nevertheless, GnRH agonists are an experimental treatment for pediatric GID, and children cannot be forced into receiving experimental treatment without their consent. Given this situation, are these prepubescent children able to provide consent for the treatment? Giordano says that they can, so long as the clinician discusses all potential risks and benefits, as he or she must do with any experimental drug. Because this is the only therapy available for children with GID, it might be considered unethical to *deny* this treatment option.

Another concern in suppressing puberty comes from the idea that arresting an otherwise normally developing body interrupts a development that might further elucidate a patient’s true gender identity. It is possible that discovery of one’s gender identity occurs during a specific or predetermined developmental stage, which is actually halted when puberty is suppressed. Some ask, is there an age at which we can be reasonably sure someone has a sufficiently clear understanding of his or her gender identity to make a decision of this kind? Finding a generalized answer to this question would certainly simplify the GID treatment process, but, of course, chronologic age does not correspond to a specific level of physical or psychological maturity or guarantee that a child has had particular experiences. Hence, the individual nature of readiness for a decision of this kind makes the psychotherapeutic element of the treatment all the more important.

It is currently recommended that treatment be initiated when the patient is in the Tanner II or III stage of puberty, when it is felt that “the child has had some experience of his/her biological gender” [10]. Data indicate that children who continue to experience gender dysphoria into early adolescence will maintain a transgender identity [13], so it is prudent to wait until this time to initiate treatment—but not much longer. If treatment is postponed too long, children may experience significant distress over the incongruities between their physical and psychological selves, and pubertal changes that are irreversible or only reversible by surgical means may occur, causing greater medical difficulties. It is currently recommended that children continue with GnRH agonist treatment until the age of 16, at which point administration of cross-sex hormones can begin [5]. Giordano underscores the

importance of frank discussions of potential risks and benefits—both of treatment and no treatment—throughout this process.

Giordano concludes that “if allowing puberty to progress appears likely to harm the child, puberty should be suspended” [14]. It would be unethical to allow a patient to suffer through the distress of pubertal development when we have a way of preventing the distress it causes. Children and adolescents who suffer from gender identity disorder face significant physical, psychological, and social challenges, and receiving an inconsistent standard of medical care adds to those challenges. Unfortunately, many clinicians are uncomfortable with the option of puberty suppression for these children, which inhibits their access to care; it is imperative that health care professionals become familiar with this treatment option. As health care professionals, we have an obligation to alleviate suffering—and for our pediatric patients with GID, who are undoubtedly suffering, suppression of puberty is a safe and easy way to begin to do so. Furthermore, if legitimate medical treatment is not available, those with GID will seek it through other channels, which are much more likely to be unsafe and will certainly not involve an appropriate level of monitoring or adjustment to manage complications [10]. This makes it all the more clear that we are professionally duty-bound to provide this treatment to those in need of it.

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