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The Bioethical Dilemma of Gender-Affirming Therapy in Children and Adolescents

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Abstract

Since the establishment of the first transgender clinic in the United States in 2007, over sixty clinics associated with children's hospitals have opened across the nation and are seeing very young children and adolescents with a diagnosis of gender dysphoria (GD). Once known as gender identity disorder, GD has been redefined by the latest version of the *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (*DSM*-5) not as a mental illness but as the distress experienced by individuals related to their biological sex. The widely accepted practice of gender-affirming therapy (GAT) to treat a vulnerable population despite the associated health risks, the lack of supportive scientific evidence for the pharmacological and surgical interventions, along with the unqualified claim that these interventions will decrease the rate of suicide in these individuals presents a significant bioethical dilemma. The growing trend of GD not only impacts the individuals diagnosed but also society, culture, and the integrity of the profession of medicine. This article utilizes the five-box method, an ethical decision-making framework, to address the implications of the proposed treatment. Once applied, it becomes clear that the hormonal and surgical approaches used are not scientifically or ethically justified. The patient's autonomy and preferences should be respected, yet constrained, if there exists a considerable risk to the well-being of the individual without proven benefits. The quality of life of those receiving this treatment has not been shown to be significantly improved long term, and the mental, physical, and spiritual health of individuals with GD is not thoroughly addressed in these clinics. The important social and contextual factors, on both microcosmic and macrocosmic scales, are minimized in favor of promoting an ideology. Ultimately, Catholic moral teaching reveals that this widely recommended treatment violates the body–soul union, disregards the principle of totality and integrity, and debases the dignity of humanity.

Summary: This article examines GAT, the paradigm used in treating individuals identifying as transgender, through the lens of an EDMF. Each stage of this widely proposed treatment - social affirmation, pubertal blockade, administration of cross-sex hormones, and sex reassignment surgery - poses harms and risks that are not fully disclosed to minors and families, creating a bioethical dilemma. Dialogue utilizing science and reasoning must be encouraged to assist individuals who experience a gender identity that rejects their biological sex. This approach would also contribute to the well-being of society.

Keywords

Adolescent health, Bioethical dilemma, Children, Cross-sex hormones, Ethical decision-making framework, Gender dysphoria, Puberty blockers, Sex reassignment surgery, Suicide, Transgender

Introduction to Gender Dysphoria (GD)

With a surge in the diagnosis of GD in very young children and adolescents, there has been a growing number of transgender clinics, well over sixty, associated with children's hospitals that have arisen

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- Must experience **distress or function impairment for a minimum of 6 months**
- Must be related to **6 of the following 8 criteria**

1) Desire to be other gender
2) Preference for wearing clothes typical of other gender
3) Preference for cross-gender roles in play
4) Preference for toys typical of other gender
5) Preference for playmates of other gender
6) Rejection of toys, games, activities associated with one's biological sex
7) Dislike of one's sexual anatomy
8) Desire for physical sex characteristics of the other gender (Parekh 2016)

Figure 1. Defining Criteria for Children.

across the nation since the opening of the first gender-expansive clinic affiliated with Boston Children's Hospital in 2007. GD replaced the previous diagnosis of gender identity disorder in the most recent version of the *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (*DSM*-5), published in 2013. According to the American Psychiatric Association, this dysphoria is described as a conflict individuals experience between their biological sex and the experienced gender in which they identify, often resulting in distress and difficulty functioning (Parekh 2016). Once categorized with sexual dysfunctions and paraphilias, the diagnosis of GD emphasizes "gender incongruence" with the intention of reducing the associated stigma experienced by those suffering from GD. Per the *DSM*-5, the transgender identification is to be viewed as a normal variation or simply a case of diversity. According to the World Professional Association for Transgender Health (WPATH), the psychological distress is not *inherent* to transgenderism but rather socially induced (Coleman et al. 2012). In an article written by D. A. Levine and the Committee on Adolescence (2013) in *Pediatrics*, the emphasis was on defining lesbian, gay, bisexual, and transgender youth not as abnormal but as a "sexual minority." The proposed treatment to alleviate the associated distress is to affirm social environments and provide unencumbered access to hormonal and surgical interventions. The movement to depathologize the mental health component is occurring, as the International Classification of Diseases, eleventh revision, no longer classifies *gender incongruence* in the chapter on mental disorders but in the chapter on conditions pertaining to sexual health (Rodríguez, Menéndez Granda, and Gonzalez 2018).

Sex and Gender

The replacement of the term *sex* with *gender* has led to a disruption of the basic understanding of anthropology. Sex, as science reveals, is definitively binary, despite WPATH claiming that it should not be considered as such (Coleman et al. 2012). Sex, being innate and immutable, is the classification of organisms based on reproductive organs, male or female, with respective gametes. The word gamete, according to the Oxford dictionary, is derived from the Greek words *gametē* (wife) and *gametēs* (husband), originating from *gamos* (marriage). Sex is determined at conception, and every cell within an individual has the genetic makeup of either male or female. No individual can assign or *unassign* one's sex with any amount of willful thinking, administered hormones, or plastic surgery. Gender refers to one's behavioral characteristics and is socially constructed. Gender identity is the psychological component, one's inner feelings of being a man or a woman (Griffin et al. 2020).

Diagnosing GD

The diagnosis of GD entails separate specific criteria for children and for adolescents and adults (Figures 1 and 2). The defining criteria for GD rely on rigid male and female stereotypes and entail no objective tests. In an article published in *Quillette*, Dr. William Malone, an endocrinologist, and others comment on how these stereotypes are "wrongly being conflated with biological sex. This conflation stems from a cultural failure to understand the broad distribution of personalities and preferences *within* sexes and *between* sexes." The result of this conflation is a large rise in the number of

- Must experience **distress or function impairment for a minimum of 6 months**
- Difference between the experienced/expressed gender and the biological sex **(revealed by 2 of the following 6 criteria)**

1) Marked incongruence between experienced gender and primary and/or secondary sex characteristics
2) Desire to rid oneself of primary and/or secondary sex characteristics
3) Desire for the sex characteristics of the other gender
4) Desire to be the other gender
5) Desire to be treated as the other gender
6) Conviction that one's feelings and reactions are typical of the other gender
7) Desire for physical sex characteristics of the other gender (Parekh 2016)

Figure 2. Defining Criteria for Adolescents and Adults.

adolescents identifying as transgender (Malone, Wright, and Robertson 2019). Not all who struggle with gender identity warrant a diagnosis of GD, a concept not acknowledged by those working in gender identity clinics. Minors who are confused with their gender identity are likely experiencing a host of internal and external factors contributing to their feelings and would benefit from looking at these contributing systems instead of relying solely on the declaration of occupying the "wrong" body (D'Angelo 2020).

Gender Affirmation Therapy Is the Recommended Paradigm for Transition

Social Transition

Social transition, or *affirmation*, is the first step whereby children in gender diverse clinics are encouraged to live in the *gender* chosen prior to any medical interventions. This is a change from the Dutch protocol for management of GD which actually did not endorse the early affirmation as the current treatment paradigm does. This protocol recommended that young children *not* make a thorough social transition before the onset of puberty to avoid the difficulty of *transitioning back* for the majority who would not persist. Parents were even advised to embrace watchful waiting (de Vries and Cohen-Kettenis 2012). However, for over a decade now, the gender affirmative model has become the adopted treatment in order to *celebrate* gender expression and remove the pathological association. In this model, pediatric psychologists and mental health professionals must be "trained appropriately" (Chen et al. 2018). Even though gender ideology views gender as fluid, the logic of social affirmation promoted in these clinics runs counter to this theory by *locking* one into the pronounced identity early. "While many individuals experience their gender identity as stable throughout their lifetimes, others find that a gender that 'fits' at age four may be different from what fits at age seven, age 18, or age 65" (Newhook et al. 2018, 217).

Suppression of Puberty

The next phase, prescribing puberty suppressing hormones, entails two stated goals. The first is to allow children and adolescents more time to explore their gender nonconformity and the second is to aid in transitioning by preventing the development of secondary sex characteristics which may be difficult to reverse if surgical reassignment is subsequently pursued (Coleman et al. 2012). Interventions to suppress puberty typically include gonadotropin-releasing hormone analogues (GnRHa), such as leuprolide, androgen receptor inhibitors, and progestins to reduce the production of biologic hormones. These treatments are typically started at sexual maturity rating (SMR) 2, a stage when females are developing breast budding and males are showing signs of testicular enlargement and thinning of scrotal skin (Shumer, Nokoff, and Spack 2016). Given that there are no standardized protocols, some providers are advocating for "skipping" the blockers and moving straight to cross-sex hormones in children (testosterone and estradiol) to promote the development of secondary sex characteristics of the opposite sex, as so performed in a recent National Institutes of Health (NIH)-funded study looking at the impact of early medical treatment in youth with GD. In this study, seven children "under the age of 13 years at the time of enrollment were enrolled into the cross-sex hormone cohort" (Olson-Kennedy et al. 2019).

Prescribing Cross-Sex Hormones

After puberty suppression, cross-sex hormones are prescribed in the next phase of *transitioning*. These are used to promote the development of secondary sex characteristics of the desired gender and are categorized as partially reversible therapy. Estradiol is prescribed to males desiring to appear female, and testosterone is prescribed to females desiring to appear male. The *suggested* age of beginning these hormones is sixteen, yet many practices are beginning at the age of fourteen and younger (Shumer, Nokoff, and Spack 2016). These individuals receiving this treatment require ongoing laboratory monitoring, given the potential health concerns. If surgery is pursued, the hormones must be continued to maintain the secondary sex characteristics of the opposite sex.

Surgical Interventions

Subsequent to cross-sex hormone therapy are the irreversible interventions of "top" and "bottom" surgeries. In females desiring to appear male, there are various operative procedures typically performed at different times and in a staged approach depending on the extent of surgical intervention desired. One can have a mastectomy with or without a hysterectomy–oophorectomy. Further procedures consist of transformation of the genitalia—metoidioplasty, urethral reconstruction, creation of a neophallus, and creation of a neoscrotum with the placement of prosthetic testicles (Monstrey, Ceulemans, and Hoebeke 2011; Bourne 2019). Typically, surgery is not performed until an individual is an adult. However, bilateral mastectomy is occurring as early as age thirteen (Olson-Kennedy et al. 2018). In males desiring to appear female, several procedures are available to transform the genitalia including orchiectomy, removal of erectile corporal tissue, creation of a neovagina by inverting the penis, shortening of the urethra, and attempts at preservation of the erotic sensation of nerves (Tugnet et al. 2007; Bourne 2019).

Disorders of Sexual Development (DSD)

Before addressing the bioethical dilemma of gender-affirming therapy (GAT), it is important to recognize those born with DSD. Proponents of gender ideology rely on DSD to rationalize that sex exists on a spectrum: male body, intersex body, and female body. This concept is inherently mistaken. An individual with a DSD has a condition that results in atypical or ambiguous genitalia derived from adverse events in development. Such an aberrancy does not translate to sex existing on a spectrum. As case in point, the human heart consists of two ventricles. There are rare cases in which individuals are born with a single functioning ventricle. This is considered a result of abnormal development, is pathological, and must be palliated for the individual to survive. The human heart is not to be considered on a spectrum of one to two functioning ventricles. In medicine, a pathological process is not a *spectrum* of orderly anatomy or function. Rather, it is a diseased condition. Aligning DSD with GD trivializes the conditions of DSD which often require medical and surgical interventions. For example, individuals with androgen insensitivity syndrome (AIS), which can be complete or partial, have a mutation resulting in impairment of the androgen receptor which can vary in severity and alter the individual's phenotype resulting in features of both sexes. Yet, these individuals have the karyotype, 46 XY. The Y chromosome carries the *SRY* gene, the sex-determining region Y protein, involved in male sexual development, including the formation of male gonads. Without it, female gonads develop. The gonads in individuals with AIS are testes and may vary in location (abdominal, inguinal, or scrotal) depending on the severity. The management of this DSD must be based on the impairment of the disorder and location of the gonads and must be individualized through a multidisciplinary approach with pastoral guidance. If an individual has the *SRY* gene, then that individual is destined to be male, even though the individual may not develop in the intended manner and display the requisite phenotype of the male sex.

The Five-Box Method, an Ethical Decision-Making Framework (EDMF)

The rapid rise in the number of individuals diagnosed with GD has resulted in a widely accepted practice of the GAT paradigm. The questions begging to be asked are as follows: Is the use of these hormonal and surgical therapies justifiable or should the practice be considered experimental? Are we helping or endangering a vulnerable population? How does this current recommended treatment for GD impact individuals, families, society, and the profession of medicine? The remainder of this article will address the implications of this controversial treatment by utilizing the five-box

Five-Box Method (Traditional four-box method with a Catholic physician's perspective)

1) Medical indications
2) Patient preferences
3) Quality of life
4) Contextual features
5) Catholic context

Figure 3. Ethical Decision-Making Framework.

method, an EDMF (Figure 3), useful in analyzing a bioethical dilemma that emerges in a clinical setting. The initial four categories of the five-box method act as an organizational tool for clinical decision-making when evaluating and treating a patient—medical indications, patient preferences, quality of life, and contextual features. The fifth category looks at the preceding four boxes with a Catholic perspective for completeness, so that a patient's beliefs are respected "to the extent that they do not destroy our own" (Marugg, Atkinson, and Fernandes 2014).

Box 1: Medical Indications

The Endocrine Society published, in 2017, clinical practice guidelines for managing and treating those diagnosed with GD. The aim was to provide suggestions and recommendations to optimize the benefit/risk ratio in caring for these individuals. There are, however, no current standardized treatment protocols for GD (Hembree et al. 2017, 6). In the summary of the guidelines, most recommendations were categorized by their strength (strong vs. weak) and by the quality of evidence (very low, low, moderate, and high). Of the graded recommendations, over half were graded as weak. In terms of quality of evidence, over 80 percent of the graded recommendations were listed as very low to low quality with no recommendations deemed as high quality. The few recommendations supported by moderate quality included confirmation of the individual meeting the criteria for the diagnosis of GD, the endocrine evaluation to ensure no medical conditions exist that could be potentially worsened by the commencement of therapy, and counseling for fertility preservation in adolescents prior to the initiation of puberty suppression and hormonal treatment (Hembree et al. 2017). The evidence to support initiation of therapy is of very low to low quality. Prospective follow-up studies have shown that approximately 80–85 percent of children who meet criteria for gender identity disorder do not persist in remaining gender dysphoric in adolescence (Newhook et al. 2018; Steensma and Cohen-Kettenis 2018; Steensma et al. 2013; Zucker 2018).

The purported benefits of prescribing puberty blockers and cross-sex hormones are the reduction in dysphoric feelings and the risk of suicide (Shumer, Nokoff, and Spack 2016). However, hormonal and surgical interventions do not treat confusion and misperception. The current push within gender identity clinics is to move the diagnosis out of the mental health realm, denying any psychopathology, even though many children and adolescents have comorbid mental health concerns, such as anxiety, depression, oppositional defiant disorder, and autism spectrum disorders (ASDs). Within these clinics, any treatment focused on helping children or adolescents identify with their biological sex is considered unethical, and imposing a binary view of sex is discouraged (Coleman et al. 2012). The clinical paradigm utilized in these clinics downplays the mental health aspect of GD and, thus, regards any psychological investigation into the "why" as harmful.

There are other conditions that exist in which individuals perceive their bodies in a manner that is counter to reality. Two frequently stated examples that display this mental and physical disconnect are anorexia nervosa and body integrity identity disorder (BIID). Most commonly seen in women, individuals with anorexia nervosa have an intense fear of becoming obese and experience their body weight or shape in a disturbed way. This form of psychopathology is accompanied by avoidance of fatty foods, excessive exercise, and the use of appetite suppressants and/or diuretics. These individuals often suffer great anxiety and depression. Some of the associated health complications of anorexia nervosa are gastroparesis, elevated transaminases, dysphagia, constipation, hypoglycemia, amenorrhea, brain and cardiac atrophy, and osteoporosis (Mehler and Brown 2015). It would be absurd to allow individuals with anorexia nervosa to be "affirmed" in their disordered thinking and not provide psychological and nutritional interventions. In BIID, individuals have an internal conflict secondary to the experienced difference between their mental body scheme and the physical shape of their body leading to a desire to acquire a physical disability, becoming an amputee or a paralyzed human being. BIID was once believed to be merely a psychological condition. However, other hypotheses as to its etiology have arisen, including congenital cerebral disorder, a neurologic condition (Blom et al. 2016). The nosological status of this disorder remains undetermined. An extreme of surgical

amputation of a healthy limb was performed twice by Robert Smith, a Scottish surgeon, who was soon barred thereafter from performing a third procedure by the National Health Service trust (Barrow and Oyebode 2019). Treatments for these disorders must be aimed at restoring mental health and addressing any contributing pathology.

In essence, based on scientific evidence, GAT remains an unjustified treatment. The administered hormones and performed surgeries interfere with normal physiology, interrupt sequential development, and invoke a diseased state which alters nonpathologic anatomy. In addition, if GD is "merely a natural variation, it becomes difficult to identify the purpose of or justification for medical intervention" (Griffin et al. 2020, 2). Given the above rationale, there are no actual medical indications for this prescribed treatment.

Box 2: Patient Preferences

The patient's dignity, autonomy, and preferences for treatment should always be acknowledged and respected. A patient's ability to assess and comprehend the benefits and burdens of a therapy is crucial. If considerable risks of treatment exist, the treatment choices must be guided by the provider to honor, first and foremost, the individual's dignity. When evaluating autonomy in minors diagnosed with GD, one must consider the lack of maturity to make medical decisions that have implications beyond the capacity of their understanding. Parents, advocating for their children, must be presented all options in their entirety to make a well-informed decision for the child. Any element of coercion must be removed. Yet isn't hidden coercion the unacknowledged foundation for GAT? Parents are *encouraged* to help children "socially transition" if the child is displaying significant distress and expressing behaviors of the opposite sex. Parents are led to believe that if they do not *affirm* their child in the expressed gender and accept the process of transitioning, then they are contributing to the touted increased risk of suicide. Informed consent, a professional responsibility, must fully address the social, biological, and psychological risks as well as alternative approaches for all categories of treatment. Does one address with the parent of a ten-year-old child, let alone the child, that the capacity for sexual arousal and orgasm will be impaired or that life expectancy is shortened? Thus, it is unlikely that informed consent is accomplished and is, at best, a negligent process (S. Levine 2019).

The Clinical Practice Guidelines of the Endocrine Society states that GnRHa are completely reversible (Hembree et al. 2017). Yet, the mechanism of action of these drugs discloses the fallacy of such a claim. Growth hormone and sex hormones work together. Suppressing puberty has a negative impact on height as it arrests bone growth as well as decreases bone density (Hruz, Mayer, and McHugh 2017). Since puberty blockers are prescribed prior to the commencement of the fertile stages—Tanner 3–4—sperm and ovum are prevented from normally developing. They hinder the typical organization and maturation of the adolescent brain by inducing a pathologic state known as hypogonadotropic hypogonadism (Laidlaw 2020). If puberty blockers are reversible, then why does the same society advocate that all individuals who seek GAT should be counseled about fertility preservation options prior to the initiation of puberty suppression? In a study looking at psychological functioning before and after puberty suppression in adolescents with GD, all seventy participants were encouraged to socially transition and none withdrew from puberty suppression with subsequent commencement of cross-sex hormone therapy (de Vries et al. 2011). This counters the evidence that most children diagnosed with GD will identify with their biological sex. Hence, puberty blockers are not truly allowing the child "time to decide." The decision is sealed with the prescribing of the blockers. What happens to patient autonomy then?

Box 3: Quality of Life

The quality of life of individuals with GD must be examined on multiple levels and include a comprehensive evaluation of their mental, physical, and spiritual health. Youth identifying as transgender are often the targets of verbal and physical harassment, and they face significant ongoing mental health issues including anxiety, depression, suicidal ideations, and body image distortion and are often prone to substance abuse and other risk-taking behaviors. Adolescent males desiring to appear female experience high rates of sexually transmitted infections and HIV, given the common association with homelessness, incarceration, sharing of needles for hormone injections, nonconsensual sex, and sex in exchange for assets (D. A. Levine and Committee on Adolescence 2013). In a study evaluating psychological outcomes in fifty-five young adults identifying as transgender who were treated with puberty suppression, cross-sex hormones, and reassignment surgery, psychological functioning and overall well-being were reported to be improved one year post surgery, but long-term effects remained unaddressed (de Vries et al. 2014). If, according to Dhejne et al. (2011), the overall increase in psychiatric

illness, suicide attempts, and suicide deaths in comparison to a control group remains elevated in sex-reassigned individuals, then the current paradigm of GAT is not effectively improving long-term outcomes or overall care for this population. In a Swiss study, the quality of life for 143 individuals who had declared their transition to be complete revealed that the individuals identifying as trans are at greater risk of increased mental health issues and a decreased quality of life in comparison to the general population. This was most evident in individuals claiming a nonbinary status (Jellestad et al. 2018).

Could part of the decreased quality of life be related to many of the potential morbidities associated with cross-sex hormones? Estrogen given to males places them at risk for venous thromboembolic events, cerebrovascular disease, increased insulin resistance, development of metabolic syndrome, and an abnormal lipid profile. There have been case reports of meningiomas, benign pituitary tumors, and prolactinomas. Females taking testosterone are also at risk for increased insulin resistance, development of metabolic syndrome, ovarian carcinomas, and a decrease in bone mineral density in those who have had oophorectomies (Feldman et al. 2016; Mueller and Gooren 2008). Of recent, a case of an androgen receptor–positive hepatocellular carcinoma was diagnosed in a teenage female desiring to appear male, who had been receiving weekly intramuscular injections of testosterone for fourteen months prior to presentation (Lin et al. 2020).

Surgical procedures are unjustified dramatic interventions, given that the suicide rate is still high after surgery. Complications include urinary meatal stenosis, neovaginal stenosis, rectovaginal perforations, and secondary revision surgeries. In a ten-year retrospective study evaluating postoperative complications of male-to-female sex reassignment surgery in 189 individuals, the most striking findings were 15 percent required blood transfusions, 27 percent had early infectious complications, and the secondary vaginoplasty rate was 6.3 percent (Cristofari et al. 2019). Sex reassignment surgery, now commonly referred to as gender affirmation surgery, does not change one's sex or affirm anyone. It is bodily mutilation that renders one infertile.

Box 4: Contextual Features—Implications for Individuals, Families, Society, and the Profession of Medicine

The social and contextual factors that interplay with the diagnosis and treatment must be evaluated on microcosmic and macrocosmic levels assessing the impact on the individual, the family, society, and the profession of medicine.

Impact on Individuals

What if individuals struggling with gender identity are anxious and distressed because of previous trauma, family dynamics, social media, pornography, or other internal and external influences preceding their confusion and these issues are left veiled by the sole focus on gender (D'Angelo 2020)? Due to these mental health stresses, a normal physiological process (i.e., puberty) that results in a rapid change could become even more distressing. In a large ($n = 2{,}164$) retrospective and prospective cohort study performed from 2006 to 2014 by Kaiser Permanente, evaluating the prevalence of mental health conditions in transgender and/or nonconforming (TGNC) children and adolescents, children (ages 3–9) had a higher prevalence of anxiety and attention deficit disorders in comparison to matched reference groups. Adolescents (designated ages ten to seventeen) had a 40–60 percent prevalence of depression. The most striking finding in both groups was that the prevalence ratio of all mental health conditions diagnosed within the six-month period *before* the first recorded status of TGNC was much higher than the controls (Becerra-Culqui et al. 2018). GAT "arguably erases the crucial, formative relational and social context the individual is embedded in, and their potential significance as generators of gender distress" (D'Angelo 2020, 2). Affirming one's expressed gender is naive and promotes a dualistic nature wherein the body has no value. And if the body has no value, then genital atrophy, reduction in sexual pleasure and orgasm, sterility, and infertility are all permissible side effects of manipulation and mutilation. The complexity of the human being is reduced to what is tangible.

Unfortunately, due to the limitations placed on psychiatrists and psychologists by this ideology, many detransitioners regret not having received the appropriate mental health services prior to commencing cross-sex hormones. These individuals are typically shunned by the very community that embraced their initial transgender or nonconforming expression. They must resort to online communities for some form of solidarity. It should come as no surprise that the number of these individuals will only increase since GAT counters the natural course of GD.

In an analysis of adults applying for legal and surgical sex reassignment in Sweden (from 1960 to 2010), a median of eight years was found to elapse from the granting of a change in legal *gender* to submitting a regret application for those who desired to return to their biological sex (Dhejne et al. 2014). Most studies do not span this length of time and report a significant number of individuals lost to follow-up. Thus, the actual number of detransitioners is not known.

Impact on Families

If parents do not support their child's decision to transition, then there are suggested avenues to usurp the rights of parents, disrupting the child's basic foundation of support. One is to utilize legal carve-outs already in place in several states surrounding sexual and reproductive health. Another is to rely on the "mature minor doctrine," assuming that the child understands fully the treatment and its risks, none of which are to be serious in nature. And, finally, physicians can assert that parental disagreement with GAT for their child violates the Harm Principle and enjoin the state to intervene (Dubin et al. 2019). This all implies that the harm of *not* allowing transition greatly outweighs the harm of *affirming* the child. But what if this proclamation is based on fallible studies and erroneous evidence? Where does the liability of harming the child with GD then lie?

This experimental paradigm has caused undue harm and fractured relationships within families. In addition, parents who choose GAT for their children are depriving their children of the choice of procreation. The legal consequences of these actions will likely be seen in the not-so-distant future when these children have the capacity to fully understand the reality of the situation.

Societal Implications

Approximately 0.7 percent of youth (ages thirteen to seventeen) and 0.6 percent of adults are reported to identify as transgender (Herman et al. 2017). Despite this relatively small percentage, the promotion of gender ideology in educational curriculums and legislation has been on a rapid rise. Social transitioning is occurring outside of the medical profession, in schools, prior to any formal diagnosis. The Endocrine Society acknowledges that "if children have completely socially transitioned, they may have great difficulty in returning to the original gender role upon entering puberty" (Hembree et al. 2017, 3879). Medicine is cooperating with a society driven by political and cultural pressures. As stated by Zucker (2020),

> if one conceptualizes gender social transition as a type of psychosocial treatment, it should come as no surprise that the rate of gender dysphoria persistence will be much higher as these children are followed into their adolescence and young adulthood. If this is, in fact, the case, one might ask why would one recommend a first-line treatment that is, in effect, iatrogenic. (p. 37)

In several public and charter schools, gender-inclusive teaching has become a part of the curriculum, instituting an ideology about gender and sexuality which fosters compelled thoughts and speech. Parents often find out *after-the-fact* that their children have been exposed to such teaching, and many are not given the option of opting out (Hasson and Farnan 2018). Thus, it is apparent that in the promotion of such teaching, mental health and co-occurring disorders are left ineffectively recognized and treated. Take for instance, the diagnosis of ASD, which may be present, but not formally diagnosed, prior to obsession with gender identity. It is plausible that attributes of ASD may actually predispose a child to developing GD. This putative co-occurrence was demonstrated in a study that evaluated two separate groups of children presenting to a clinic—one group referred for GD and the other group (control) referred for other reasons. The findings revealed that 21.3 percent of the children referred for GD had a clinical diagnosis of ASD whereas the control group had none (Leef et al. 2019). Another significant concern is the escalating number of teenage females suddenly claiming to be transgender, referred to as rapid onset GD, a phenomenon described as a social contagion. They are presenting with peers at similar times, typically corresponding with an increase in social media use and no prior history of distress related to their sex (Littman 2018). In 2018, the Equalities Minister in the United Kingdom launched an investigation into the mounting numbers—greater than 4,000 percent rise in less than a decade—of females seeking treatment for "transitioning" (Owen 2018). This is the new pandemic.

In *Bostock v. Clayton County, Georgia, 590 U.S.* ___ (2020), sex was interpreted to include sexual orientation and gender identity in Title VII, even though the parties conceded that the term sex referred specifically to male and female. Treating a male identifying as female differently than a biological female is considered to be discrimination; both

individuals claim female sex which should be considered irrelevant in employment decisions. In medicine, this misinterpretation has overreaching consequences. An individual identifying as trans must be treated based on his or her genome, the organizing biological configuration in control of the collaboration of cells, tissues, and organs, not based on how he or she identifies. Case in point, a woman identifying as a male presented to an emergency department complaining of abdominal pain. The nurse in triage assessed "him" as nonurgent—a hypertensive, obese man with abdominal pain. This woman delivered a stillborn infant hours later. The article points out that if the nurse would have worked outside of the "implicit classification algorithm," then the outcome may have been very different (Stroumsa et al. 2019). Isn't that what society is cultivating, though? For the individual to be treated as self-identified? It's difficult to have it both ways.

Profession of Medicine—The Conduit of False Advertisement

In the context of GAT, the medical professional is no longer the expert but merely the technician satisfying the patient's desires even at the expense of violating the patient's intrinsic dignity. In medical school, one learns to formulate a differential diagnosis for presenting problems. Without which one could easily be misled to assigning the wrong diagnosis and treatment paradigm and ultimately risk harming the patient. With gender affirmation, no differential diagnosis is entertained. The distress of GD is assumed to be the result of identifying with a gender that does not align with one's biology. The solution is to change the body to align with the mind.

A decrease in suicidality is the major goal for GAT—but the evidence does not support the claim. In a population-based matched cohort study conducted in Sweden, spanning thirty years, 324 sex-reassigned individuals were evaluated with the objective of estimating mortality, morbidity, and criminal rate after surgery. There was a substantially higher rate of overall morbidity and mortality including higher rates of psychiatric hospitalizations, attempted and successful suicides, and death from cardiovascular disease in transsexuals compared to a control population (Dhejne et al. 2011). In August 2015, the National Center for Transgender Equality launched the US Transgender Survey, which was a follow-up to the National Transgender Discrimination Survey (NTDS) of 2008–2009. This survey generated the largest known sample of adults identifying as transgender—27,715 individuals, ages eighteen and over. The percentage of respondents who had attempted suicide in their lifetime was 40.4 percent, similar to the 41 percent reported in the NTDS (Herman, Brown, and Haas 2019).

After evaluating a cohort of gender-referred individuals seen at the Center of Expertise on Gender Dysphoria of the Amsterdam University Medical Centers, a retrospective designed study was conducted utilizing an expanded length of time (1972–2017). It looked at the overall suicide death rate in a total of 8,263 trans-identifying men and women, including adolescents and children. Seventy percent of those who had committed suicide were in active treatment with near equal distribution of deaths across the different phases of treatment (Wiepjes et al. 2020). Another study published in October, 2019, evaluated the mental health treatments of 2,679 individuals in the Swedish National Patient Register diagnosed with gender incongruence. It concluded that there was no significant decrease in mental health visits in those receiving hormone therapy. It initially claimed that gender-affirming surgeries were linked to a reduction in mental health visits and that the decision to seek surgical intervention should be supported. After multiple letters to the editor revealed the statistical methodology to be faulty, the claim was retracted. There is *no* evidence that hormones or surgery benefit individuals with gender incongruence (Bränström and Pachankis 2020). At what point will GAT be declared false advertising? The suicide rate of trans-identifying individuals in GAT will most likely not begin to drop to the level of an age-controlled population until the contributing factors are thoroughly evaluated.

With the promotion of the GAT paradigm, the profession of medicine lacks credibility in what has become the modern-day experiment on a suffering population. The limitations of published studies

> include a general lack of randomized controlled design, small sample sizes, high potential for recruitment bias, questions regarding the precision of measured parameters, nongeneralizable population groups, relatively short follow-up, high numbers of patients lost to follow-up, and frequent reliance upon "expert opinion" alone. (Hruz 2020, 35)

In 2015, the NIH granted US$5.7 million to fund a five-year longitudinal observational design looking at the impact of early medical treatment in transgender youth. Four academic sites were chosen. Gender-dysphoric youth were divided into two groups—(1)

early stage of puberty development to assess the impact of pubertal suppression and (2) late stage of puberty development to assess the impact of cross-sex hormones. There were no control groups. In 2017, in the midst of the project, the cross-sex hormone group minimum age requirement was lowered from thirteen to eight (Olson-Kennedy et al. 2019).

Despite poor quality research and glaring ethical concerns, the American Academy of Pediatrics (AAP) came out with a statement in October, 2018, stating that the provider's role in caring for gender-dysphoric patients, regardless of age, is to affirm the child's experienced gender. To not do so is considered "unfair and deceptive," and watchful waiting is "outdated" (Rafferty et al. 2018). A fact-checking article of the AAP's endorsement of gender affirmation pointed out that the AAP utilized many references that contradicted its proclamation. Of eleven follow-up studies that reveal the actual outcomes of gender-dysphoric children, it only cited one, misleading its 67,000 members. It claims "conversion therapy" models used to avert children and adolescents from identifying as trans are deleterious. However, the referenced conversion therapy applies to adults with same-sex attraction and has nothing to do with gender identity (Cantor 2020). Perhaps this statement in support of gender transition which counters real evidence should join the ranks of other "retired" statements published by the AAP. One example is the Policy Statement: Ritual Genital Cutting of Female Minors (2010). Soon after its release, the AAP received backlash because it suggested that it "might be more effective if federal and state laws enabled pediatricians to reach out to families by offering a ritual nick as a possible compromise to avoid greater harm" from more disfiguring procedures in other countries (Committee on Bioethics 2010, 1092). In recommending transition, the AAP's current stance is in support of removal of healthy breasts, a secondary sex characteristic, in female adolescents with GD. With the exorbitant rise in teenage females presenting as gender dysphoric, the incidence of mastectomies will naturally follow.

Box 5: The Catholic Physician's Perspective

All human beings, created in the image of God, deserve the means to flourish and contribute their gifts and talents to society. GAT fractionates further the suffering individual. Given the ever-changing landscape of medicine in modern society due to technological advances and social influences, the Catholic physician must rely on firm moral fundamentals to faithfully care for every patient. The Ethical and Religious Directives (ERDs) are the guidelines created to offer this foundation for Catholic physicians and institutions providing Catholic healthcare services. In the professional–patient relationship, ERD no. 23 states the duty of the physician to respect and protect the dignity of every human being. Number 27 of the ERDs addresses free and informed consent urging that the patient (and guardians) receive "all reasonable information" about the essentials of the treatment and "any reasonable and morally legitimate alternatives." This must include the option of allowing the child to pass through puberty without GAT, a crucial aspect that is not discussed in gender identity clinics. Manipulating, mutilating, and sterilizing individuals with GD infringes upon their dignity and violates the principle of totality and integrity, ERD no. 29. It is our responsibility, as healthcare providers, to preserve one's functional integrity, only removing that which is pathologic and harmful to the whole (US Conference of Catholic Bishops 2018).

Caring for those who identify as transgender necessitates an in-depth understanding of the individual with decision-making rooted in integrity and not conflated with a pretense of compassion. Ongoing conscience rights protection for those who practice medicine in alignment with doing no harm is even more crucial as attacks are currently being launched against Catholic hospitals refusing to perform gender transition surgeries (Smith 2020). In the case of GD, affirmation grounded in reality and science, reconciling the mind with the body, is the ethically sound route. Attempts to align the body with misperceptions will never accomplish the intent because the genetic constituency of every cell remains, and functional anatomy of the opposite sex cannot truly be surgically constructed. Gender ideology counters science and annihilates the human person. We must not be silent about the imperative need for adequate mental health evaluations. We must support our colleagues in psychology and psychiatry. "There is a need to reaffirm the metaphysical roots of sexual difference, as an anthropological refutation of attempts to negate the male-female duality of human nature, from which the family is generated" (Congregation for Catholic Education 2019, 19).

Conclusion

In conclusion, the EDMF used to analyze the paradigm of GAT reveals that there are no medical indications for this treatment for patients suffering with GD. Patient preferences are shaped by coercion and

a lack of truly informed consent. As outlined extensively, the quality of life of individuals treated with GAT is not improved, given the ensuing morbidity of many of the interventions and the consistently high rate of suicide risk. GAT has become a detriment not only to the individuals being treated but also to society as a whole by dismantling the family and teaching a false narrative in public schools. In looking ahead, medicine must be accompanied by truth and scientific evidence to withstand the attacks on humanity from social and political ideology and to render just treatment, honoring the dignity of every human being. This is a great task, we, as Catholic physicians, must lovingly and courageously embrace.

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