

Supporting Transgender Children: What Does The Evidence Say?

As medical students at the University of Alberta, we feel compelled to respond to the recent publication by our clinical faculty, Dr. Achen and Dr. Fenske, on parentchoice.ca [1]. This article comments on Alberta Education's guidelines for school policy around transgender children, and more generally on the morality of treating gender dysphoria. We believe that they do not accurately interpret the large amount of research on gender dysphoria, nor do they reflect the widely-accepted current practices in its treatment.

Gender dysphoria (previously called "gender identity disorder") is a psychiatric diagnosis. It is the feeling of distress that comes from a mismatch between a person's internal sense of gender (their "gender identity") and the gender they were assigned at birth (including their physical sex characteristics and masculine/feminine gender roles).

People whose gender identity does not match their assigned gender are called "transgender," while "cisgender" people have a matching gender identity and assigned gender.

"Fight against their own nature"

Currently, there is no scientific explanation for why some people experience gender dysphoria. However, MRI brain images show that transgender people's brains match their gender identity rather than their assigned gender.

The outer layer of the brain, the cerebral cortex, is thicker in cisgender women than in cisgender men. It is also thicker in of male-to-female (MtF) individuals, and thinner in female-to-male (FtM) individuals [2]. The white matter connections in MtF brains are also arranged like cisgender women's, different from FtM and cisgender men [3,4]. Deeper brain structures like the putamen are more similar between FtM and cisgender males as well [2].

These brain differences exist even before transgender people start hormone therapy, which means that transgender people are not confused impersonators: there is a biological basis for gender dysphoria.

Risks and benefits of treating gender dysphoria

Dr. Achen and Dr. Fenske briefly discuss treatment for adult gender dysphoria, raising fears of cancer and vascular disease. Hormone therapy for transgender individuals is widely studied, with thousands of patients around the world receiving treatment [5,6]. Like any medication, it has risks, but it is considered safe if prescribed and followed by a physician¹. The benefits of hormone treatment are well-established: it improves quality of life [13], mood [14], and psychological distress [15] for transgender people.

¹ A study of 1,331 transgender patients showed no increase in overall death from cancer [7]. MtF individuals had lower rates of breast cancer than cisgender women [8] and lower rates of prostate cancer than cisgender men [9]. They had higher rates of lung cancer and hematologic cancers, but this is likely attributable to associated risk factors like smoking and HIV (not hormone treatments). FtM individuals likewise had no increase in death from cancer. Testosterone is in fact protective against breast cancer [10], as is bilateral mastectomy. Ovarian, uterine, cervical, and vaginal cancers are extremely rare in FtM individuals [5].

When it comes to vascular disease, MtF have the same risk of heart attacks as cisgender men, which is higher than cisgender women [11]. Although concerning, this means that estrogen does not increase heart attack risk. FtM have the same risk of heart attacks as cisgender women [11], meaning testosterone is safe for the heart [12]. Hormones do not raise the risk of strokes. Estrogen does carry a risk of blood clots in veins; this is a serious consideration, which MtF patients should discuss with their doctors, as it can be reduced by choosing the estrogen dose carefully [6,11].

Patients may also choose to pursue surgical options for aligning their body with their gender identity. These operations are consistently improving with time and experience, and for the right patients they are very satisfactory. For genital surgeries, patients felt an 80% improvement in gender dysphoria symptoms, 78% improvement in psychological symptoms, and 80% improvement in quality of life [16]. One study found only 2.2% of patients felt regret, largely those who had surgery in the 1960s [17].

Lastly, there are medical options for adolescents who experience gender dysphoria, but who are not old enough to consent to cross-sex hormone therapy. Reversible puberty blockers bridge gender dysphoric adolescents to a consenting age. By stopping changes like hair growth or breast development, these medications improve psychological functioning, and objective and subjective well-being [18].

Hormone therapy and surgical therapy are the current standard of care for patients with gender dysphoria. These recommendations are based on evidence from thousands of patients that gender transition is safe and effective. Providing transition-related care for transgender patients in transitioning is recommended by the American Medical Association [19], Mental Health Commission of Canada [20], Canadian Psychiatric Association [21], Royal College of Psychiatrists [22], American Psychiatric Association [23], Endocrine Society [24], American Academy of Pediatrics [25], and the American Psychological Association [26].

Schools and families

The new guidelines from Alberta Education recommend that teachers ask for a student's permission before talking to their parents, guardians, or peers about their gender identity. We know that schools are not safe places for most transgender students: 74% of trans students are verbally harassed, 37% are physically harassed, and 49% are sexually harassed [27]. This is the environment in which teachers or administrators may learn that a student identifies as transgender.

While the family is often “the primary place of security and support for growing children,” as Dr. Achen and Dr. Fenske state², this is unfortunately not always the case. For transgender adolescents with unsupportive parents, 75% have depressive symptoms (compared to 23% of those with supportive parents); 70% consider suicide (compared to 34%), and 57% attempt suicide (compared to 4%) [28]. An unsupportive family is the biggest risk factor for suicide of transgender adolescents, and so stirring family conflict is a matter of life and death.

Do transgender children always grow into transgender adults?

Actually, children who meet the DSM-5 criteria for gender dysphoria do not always grow up to be transgender. At least 50% of children who meet the diagnostic criteria will become comfortable with their assigned gender by adulthood [29], without any therapy, though they are more likely to identify as homosexual or bisexual [30]. Adolescents are a bit different: those who continue to meet the criteria for gender dysphoria after puberty are much more likely pursue gender transition as adults [31].

A report looking at six patients found that the distress of gender dysphoria in adults can go dormant due to changes in life circumstances or psychiatric medications [32]. However, there is no evidence that cure or long-term remission is possible, contrary to the statement by Drs. Achen and Fenske that “counselling and corrective procedures have proven-effective benefits.”

² Dr. Achen and Dr. Fenske also raise the concern that this recommendation contradicts the APA's position. However, this would only be valid if teachers were the ones providing medication: parents must be involved in medical decisions, but not necessarily in discussions unrelated to treatment options.

Gender non-conforming children's internal experience of gender may or may not change in adolescence. Similarly, some gender-typical children will surprise their friends and families by identifying as transgender after puberty or in adulthood. This appears to be a normal part of human diversity. However, there is no evidence that psychotherapy for children can shift these outcomes [29]; in fact, "reparative therapy" is widely discredited [33].

The Bottom Line

What does this mean for schools and families dealing with transgender children? Currently there is no definitive way to predict which children will grow up to be transgender and which will not, apart from maybe MRI scanning all children's brains. But whether or not they grow into transgender adults, transgender children are often targets for bullying and may not be supported at home. Following Alberta Education's recommendation to "Respect an individual's right to self-identification," [34] and creating safe spaces for self-expression, really is the best support we can offer.

The Sexual Orientation & Gender Identity Advocacy Committee is a student initiative under the Medical Students' Association at the University of Alberta. It is a student group which organizes the annual conference Inclusive Health: An LGBTQ Healthcare Primer.

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