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SOCIETY FOR EVIDENCE BASED GENDER MEDICINE

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Current Concerns About Gender-Affirming Therapy in Adolescents

The field of gender medicine must stop relying on social justice arguments and return to the time-honored principles of evidence-based medicine.

A new article in Springer's *Current Sexual Health Reports*, "Current Concerns About Gender-Affirming Therapy in Adolescents," provides an up-to-date overview of the current state of evidence about the practice of gender transition in youth in the Western world and discusses the international debates surrounding this controversial practice.

The authors identify the key area of concern: It is unknown how gender-transitioned young patients fare in the long term. Systematic reviews of evidence of youth gender transition are naturally limited by short follow-up times, as the practice only began at scale after 2015. For this reason, it is informative to look at long-term adult outcome data. Unfortunately, the long-term studies of adult transitioners have repeatedly failed to show lasting psychological improvements, and studies with the longest follow-up suggest "the possibility of treatment-associated harms [7, 40•]."

In fact, the disappointing long-term outcomes of adult transitioners were used to justify transitioning minors, in the hope that earlier intervention would lead to improved outcomes. However, every quality systematic review of youth gender transition to date has failed to find credible benefits even in the short-term, issuing conclusions about the risk-benefit ratio that range from highly uncertain to unfavorable.

The authors observe:

> *There has never been a dispute about whether medical and surgical interventions can feminize or masculinize secondary and some primary sex characteristics. For children and adolescents, the debate is not whether such transformations are possible, but "at what age can youth meaningfully consent," "upon fulfilling which criteria," and perhaps most importantly, "just because we can – should we?" [1•]. Such questions have provoked an intensity of divisiveness within and outside of medicine rarely seen with other clinical uncertainties [18–22]. This passion reflects decidedly different prioritization of scientific evidence, medical ethics, and social values.*

Ten key unproven—or disproven—assumptions underlying the practice of youth transitions

The authors note that while a "growing number of European countries recognized deficiencies in the evidence supporting the highly medicalized "gender-affirming" approach to treating gender-dysphoric youth [1•, 33••, 34••, 35, 36], in North America, the narrative that "gender-affirmative care has been scientifically proven" has been remarkably resilient [23••]."

The authors observe that the practice of "gender affirmation" of minors using hormones and surgery is based on 10 key fallacious assumptions that are misrepresented as proven facts:

1. The emergence of a trans identity is the result of reaching a higher level of self-awareness.
2. Whether the trans-identity emerges in very young children, older children, teens, or mature adults, it is authentic and will be lifelong.
3. All gender identity variations are biologically determined and inherently healthy.
4. The frequently co-occurring psychiatric symptoms are a direct result of gender incongruence (the so-called "minority stress" model).
5. The only way to relieve, or prevent, psychiatric problems is to alter the body at the earliest signs of puberty.
6. Psychological evaluations and attempts to address psychiatric comorbidities should only be used to support transition.
7. Attempts to resolve gender dysphoria with psychotherapy range from ineffective to harmful.
8. Gender-dysphoric youth must have unquestioning social, hormonal, and surgical support for their current gender identities and desired physical appearance.
9. All individual embodiment goals, even those that do not occur in nature, must be fulfilled to the full extent technically possible.
10. Science has proven the benefits of early gender transition, and low rates of regret and detransition further validate the practice.

The authors refute these assumptions, focusing on the three most critical fallacies. They recount the evidence that **identity formation in adolescence is far from complete**, and a trans identity for many will prove to be temporary. They note that the rationale for "gender-affirming" interventions has shifted from reducing extreme suffering, to merely **fulfilling individual embodiment goals**, which undermines the original premise of administering drastic, irreversible interventions off-label to young people whose identities are far from fully formed.

Finally, the authors note that **the claim that gender-transition is a proven net-beneficial practice is demonstrably false**. The claims by gender medicine clinicians that these interventions are "proven" collapse when scrutinized through the lens of systematic reviews, which are a fundamental requirement of evidence-based medicine. Unlike "narrative reviews" which the field has come to rely on, and which cherry-pick "favorite" studies and merely restate those studies' biased conclusions, systematic reviews require the analysis of all the available evidence, subjecting each study to a critical appraisal for risk of bias and other methodological problems, issuing an overarching conclusion which states the effects of a given treatment, and grades evidence for quality/certainty.

To date, every systematic review of evidence has concluded that the evidence of benefits is highly uncertain. The only disagreement is about the harms: some consider the harms also uncertain, while others note that the evidence of potential harms to bone and cardiovascular health, and the expected infertility and sterility, render the practice net-harmful for most youth today.

Clash of Ethical Principles and Value Systems

The authors note that most clinicians involved in the heated debate over gender-transitions of youth believe that they are practicing according to the principles of medical ethics. The disagreement comes from a clash in value systems:

> *Those who insist that a young person has the right to receive any medical intervention they desire now, and the right to regret that intervention later, privilege autonomy above all else. Those who advocate for sharply curbing the practice of medical interventions in gender-diverse minors because they view the practice as a major source of iatrogenic harm, privilege the principle of non-maleficence.*

They also acknowledge that there is disagreement about what constitutes beneficence:

> *Each side claims they are pursuing beneficence, but sharply disagree on the solution: one side insists that the most benefit is derived by undergoing a transition as early in puberty as possible to achieve the best possible cosmetic outcomes, while the other asserts that achieving cognitive maturity, emotional stability, and obtaining life experiences (including sexual experiences) prior to making the decision to undergo irreversible transition will provide the most long-term benefit for affected individuals.*

Detransition and Regret

The authors point out the growing evidence of significant rates of medical detransition, which has reached 30% in at least one comprehensive analysis of US data. They note that while not all detransition signifies regret, the claims of less than 1% regret rates are not credible.

Most studies reporting low regret rates define regret narrowly, such as requesting a legal change of sex markers or beginning the administration of natal-sex hormones. However, many detransitioners do not have their gonads (ovaries and testes) removed, so they have no need to supplement with natal sex hormones upon detransition. One of the most-frequently quoted studies of "very low regret" would not have considered Keira Bell, one of the best known regretters whose case contributed to the UK's current restructuring of its approach to managing gender dysphoria in youth, to be a regretter.

The authors acknowledge that regret is a complex phenomenon, and regret and acceptance can co-exist. For many people who have undergone the most extensive physical changes, detransition is not possible, and many choose an adaptive approach of making the best of their lives without undergoing more invasive procedures. However, as the numbers of detransitioners grow, regret and lawsuits by harmed patients will likely increase in number and visibility.

The Reversal of "Gender-Affirming Care"

The authors note that public health authorities are increasingly aware that hormones and surgery are being administered to a growing number of children and adolescents with gender dysphoria who are unlike previous cohorts of transgender-identifying individuals. In years past, the majority of youth seeking to transition were male and had longstanding gender dysphoria. Today, the preponderance of young people with gender dysphoria are females whose transgender identities emerged only in adolescence and who suffer from pre-existing mental illness and neurocognitive disorders.

After public health authorities in England, Finland, and Sweden conducted systematic reviews of the available evidence to determine whether the benefits of youth gender transition outweigh the risks, they concluded that the benefits do not outweigh the risks and have revised their practices and policies, sharply restricting medical and surgical transition of children and adolescents. Reassessment of policies governing gender transition of youth also is underway in France, Norway, and several US states.

In the United States, a number of states have begun to pass laws that sharply restrict the availability of "gender-affirming" interventions in general medical settings. The authors suggest that politicization of this complex issue may have been a direct result of the US medical societies' decision to privilege civil rights arguments over the principles of evidence-based medicine:

> *Many US state laws have been introduced to limit or ban gender transitions of youth [93]. The reluctance of the US medical societies to recognize the apparent problems with medical "gender affirmation" of youth may have contributed to the unfortunate and preventable politicization of this complex issue.*

The authors remind clinicians that while social justice, civil rights, and freedom of expression are compelling arguments, they complicate "clinicians' consideration of how to respond to gender dysphoric adolescents and their families." The authors note that concerned family members want to know: " 'Where is this identity coming from?' 'What about my child's previous difficulties?' and critically, 'Will transition give my child the best chance for a happy and fulfilling life?' "

When faced with such questions, "clinicians are ethically bound to honestly represent the uncertainty of the current state of knowledge, rather than asserting that body modification is the best, safest, and most effective treatment. When a concerned family seeks our counsel, they are seeking our knowledge, not our political ideation and beliefs."