TITLE: The Latest Transgender Study Is Fatally Flawed

A recent and well-publicized article in the *New England Journal of Medicine (NEJM)* declares that juveniles begun on sex-characteristic altering hormones experience increased satisfaction with their physical appearance and improved psychosocial functioning. Yet this isn't the full story. An accompanying editorial outlines the continued uncertainties about the potential adverse effects of these drugs on adolescents going through puberty. In fact, there are many uncertainties and weaknesses of this study that should be addressed.

The researchers and four clinics featured in this study have a well-publicized history of radical activism and advocacy for the medical transition of children. For example, Boston Children's Hospital posted and later removed a video on its YouTube channel that endorsed the idea that some children know their gender identity "from the womb." As we noted in our recently released study, the UCSF website endorses the idea that naturopathic providers are well-suited to prescribe gender-affirming hormones. Lurie Children's Hospital of Chicago has disseminated "educational" materials to local schools that recommends that schools "automatically 'affirm' students who announce sexual transitions, and 'communicate a non-binary understanding of gender' to children in the classrooms...to disrupt the 'entrenched [gender] norms in western society." One co-author of the paper based at Children's Hospital Los Angeles told CNN in 2014 that "We're definitely in the middle of a gender revolution and it's exciting."

Given this obvious bias, there is a high likelihood that study participants were steered toward responses that align with the activism promoted by these clinics. This phenomenon – known as "demand characteristics" – is a remarkably well-documented threat to the validity of survey-based scientific inquiry, even for researchers who do their best to conduct studies dispassionately and objectively.

The study suffers from other major flaws, as well. Its results indicate that the only meaningful improvement over time was participant scores for "appearance congruence." Improvement in positive affect, life satisfaction, depression and anxiety only improved by the smallest margins. Notably, their study does not include comparison groups that received psychotherapy or no intervention, so whether these modest improvements are superior to alternative approaches is impossible to assess.

The researchers observe extremely modest self-reported mental health improvement among participants who began taking gender-affirming hormones later in puberty, but static measures among those who started taking these hormones early in puberty. They explain that "These observations align with other published reports that earlier access to gender affirming medical care is associated with more positive psychosocial functioning." In other words, they assert that the lack of improvement among this subsample constitutes evidence in support of their radical worldview. It's a "heads I win, tails you lose" proposition.

This study, despite the headlines it has received, is fatally flawed and borderline unscientific. <u>Like other studies on the topic</u>, it obfuscates rather than clarifies questions around the

medical transition of children. Policymakers must accept that <u>elite gatekeepers have become</u> <u>cheerleaders</u> and that their recommendations on politicized topics warrant healthy skepticism. Rather than follow their lead, policymakers should emulate European countries that increasingly prohibit access to these experimental treatments for minors, largely due to acknowledgement that the evidence base fails to establish that these treatments are beneficial on balance.

American children deserve better than risky medical treatments justified by activism cloaked as research. Until reform comes, the "adults in the room" might just be on another continent.