

No. D-1-GN-22-002569

PFLAG, INC., ET AL.,
Plaintiffs,

v.

GREG ABBOTT, ET AL.,
Defendants.

IN THE DISTRICT COURT OF

TRAVIS COUNTY, TEXAS

459th JUDICIAL DISTRICT

EXPERT REPORT OF DR. JAMES CANTOR

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I. Background & Credentials

1. I am a neuroscientist and sex researcher, with an internationally recognized record studying the development of human sexuality and atypical sexualities. I am the author of over 50 peer-reviewed articles in my field, spanning the development of sexual orientation, gender identity, hypersexuality, and atypical sexualities collectively referred to as *paraphilias*. I am the author of the past three editions of the gender identity and atypical sexualities chapter of the *Oxford Textbook of Psychopathology*. These works are now routinely cited in the field and are included in numerous other textbooks of sex research. These publications span the biological and non-biological development of human sexuality, the classification of sexual interest patterns, the assessment and treatment of atypical sexualities, and the application of statistics and research methodology in sex research.

2. Over my academic career, my posts have included Senior Scientist and Psychologist at the Centre for Addiction and Mental Health (CAMH), Head of Research for CAMH's Sexual Behaviour Clinic, Associate Professor of Psychiatry on the University of Toronto Faculty of Medicine, and Editor-in-Chief of the peer reviewed journal, *Sexual Abuse*. That journal is one of the top-impact, peer-reviewed journals in sexual behavior science and is the official journal of the Association for the Treatment of Sexual Abusers. In that appointment, I was charged to be the final arbiter for impartially deciding which contributions from other scientists in my field merited publication. I believe that appointment indicates not only my extensive experience evaluating scientific claims and methods, but also the faith put in me by the other scientists in my field. I have also served on the Editorial Boards of the *Journal of Sex Research*, the *Archives of Sexual Behavior*, and *Journal of Sexual Aggression*. I am currently the Director of the Toronto Sexuality Centre in Canada. Thus, although I cannot speak for other scientists, I regularly interact with and

am routinely exposed to the views and opinions of most of the scientists active in our field today, within the United States and throughout the world.

3. For my education and training, I received my Bachelor of Science degree from Rensselaer Polytechnic Institute, where I studied mathematics, physics, and computer science. I received my Master of Arts degree in psychology from Boston University, where I studied neuropsychology. I earned my Doctoral degree in psychology from McGill University, which included successfully defending my doctoral dissertation studying the effects of psychiatric medication and neurochemical changes on sexual behavior, and included a clinical internship assessing and treating people with a wide range of sexual and gender identity issues.

4. I began providing clinical services to people with gender dysphoria in 1998. I trained under Dr. Ray Blanchard of CAMH and have participated in the assessment and treatment of over one hundred individuals at various stages of considering and enacting both transition and detransition, including its legal, social, and medical (both cross-hormonal and surgical) aspects. My clinical experience includes the assessment and treatment of several thousand individuals experiencing other atypical sexuality issues. I am regularly called upon to provide objective assessment of the science of human sexuality by the courts (prosecution and defense), professional media, and mental health care providers.

5. I have served as an expert witness in 17 cases in the past four years. In these cases I have provided courts with the research and scientific background regarding the full range of human sexual interest patterns, including the sexual orientation, gender identity, and paraphilias, including the forensic aspects they sometimes involve, and how to distinguish these features, which is not obvious and often confused by non-experts. These cases listed on my *curriculum vitae*, attached here as Appendix 1. They include Frye hearings, custody hearings, trials, and a range of pre-trial

hearings.

6. A substantial proportion of the existing research on gender dysphoria comes from two clinics, one in Canada and one in the Netherlands. The CAMH gender clinic (previously, Clarke Institute of Psychiatry) was in operation for several decades, and its research was directed by Dr. Kenneth Zucker. I was employed by CAMH between 1998 and 2018. Although I was a member of the hospital's adult forensic program, I remained in regular contact with members of the CAMH child psychiatry program (of which Dr. Zucker was a member), and we collaborated on multiple research projects.

7. For my work in this case, I am being compensated at the hourly rate of \$400 per hour. My compensation does not change based on the conclusions and opinions that I provide here or later in this case or on the outcome of this lawsuit.

II. Executive Summary

- The scientific research literature has long and consistently demonstrated that there is more than one distinct phenomenon that can lead to gender dysphoria. These types show distinct epidemiological and demographic patterns, unique psychological and behavioral profiles, and differing responses to treatment options. Much misunderstanding follows from mis-attributing information across these types.
- For adults with gender dysphoria, studies show that those who are otherwise mentally healthy and undergo thorough (1–2 year) assessments supervised by clinics engaged in gate-keeping roles typically adjust well to life as the opposite sex.
- For pre-pubescent children with gender dysphoria, there have been exactly 11 cohort studies reporting on outcomes. All 11 reported the majority of children to cease to feel dysphoric by puberty, reporting being gay or lesbian instead.
- For pubescent and adolescent age minors using puberty blockers or cross-sex hormones, there have been (also) 11 cohort studies: In four, mental health failed to improve and even deteriorated on several variables. In five, some mental health variables improved, but because psychotherapy and medical interventions were provided together, it cannot be known which treatment caused what changes. The two remaining studies employed methods that did permit psychotherapy effects to be distinguished from medical effects, and neither found medical intervention to be superior to psychotherapy-only. These studies are often misrepresented as support for medicalization by overlooking the concurrent psychotherapy.

- Psychological research importantly distinguishes completed suicide—which occurs primarily among biological males and involves the intent to die—from suicidal ideation, gestures, and attempts—which occur primarily among biological females and represent psychological distress and cries for help. The evidence is minimally consistent with transphobia being the predominant cause of suicidality. The evidence is very strongly consistent with the hypothesis that other mental health issues, such as Borderline Personality Disorder (BPD), cause suicidality and unstable identities, including gender identity confusion.
- The international consensus of public health care agencies is that there is insufficient evidence to support medicalized transition of minors. Although initially supportive, Sweden, Finland, France, and the United Kingdom have issued increasingly restrictive statements and policies, now prioritizing psychotherapy as the treatment of choice, including an outright ban on medical transition of minors in Sweden.
- For reference, the following table summarizes the age recommendations for the transition of minors within the Dutch Protocol, the Endocrine Society guideline, and the current and the expected upcoming version of the WPATH standards of care:

Procedure	Dutch Protocol (2012)	Endocrine Society (2017)	WPATH v7 (2011)	WPATH v8 (expected 2022)
Social Transition	Post-puberty	Neutral	No recommendation	No recommendation
Puberty Blockers	12	As soon as puberty begins	As soon as puberty begins	As soon as puberty begins
Cross-sex Hormones	16	16, unless “compelling reasons”	Age of majority, “in many countries, 16”	14
Mastectomy	18	No recommendation	1 year after cross-sex hormones	15
Breast Augmentation	18	Not mentioned	Not mentioned	16
Vaginoplasty, Metoidioplasty, Orchiectomy	18	18	Age of majority	17
Phalloplasty	18	Not mentioned	Age of majority	18

III. Fact-Check of Plaintiff Expert Declaration

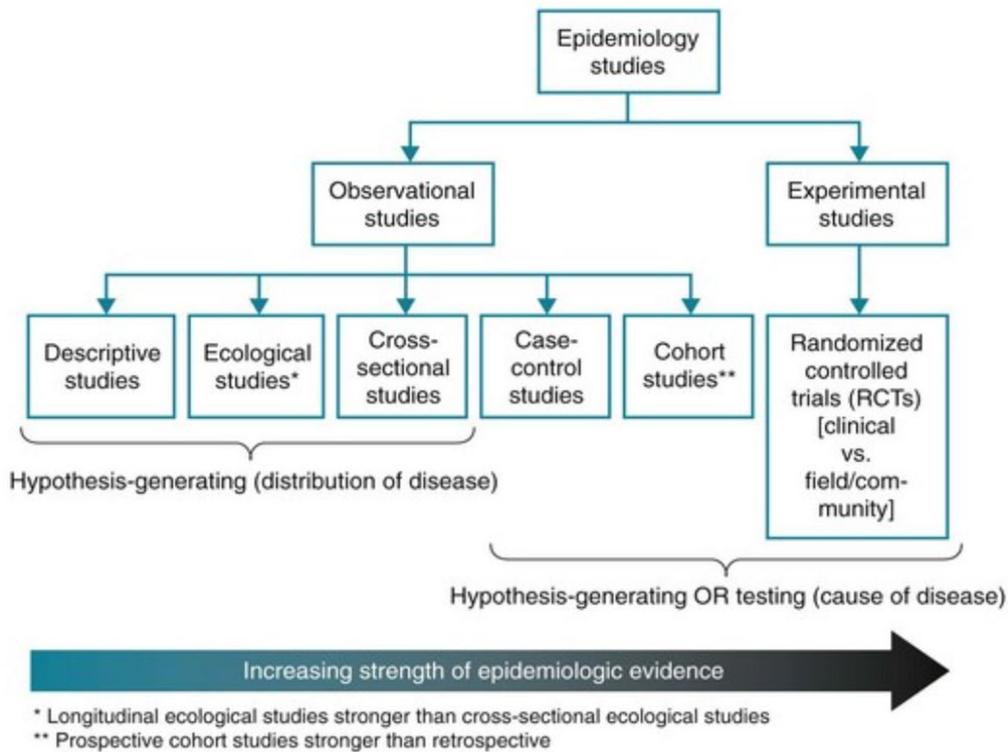
8. In clinical science, there are two kinds of expertise: A physician’s expertise regards

applying general principles to the care of an individual patient and the unique features of that case. A scientist's expertise goes the other way around, accumulating information about many individual cases and identifying the generalizable principles that may be applied to all cases. Thus, different types of decision may require different kinds of expert, such that questions about how the general rules might apply to an individual patient's specific situation might be better posed to a physician's expertise, whereas questions about establishing the general rules might be better posed to a scientist's.

9. I have compared the claims in Dr. Brady's declaration with the contents of the peer-reviewed research literature and according to the scientific principles and statistical methods of clinical science and sex research. As detailed in the following, Dr. Brady shared only a small and misrepresentative selection of the relevant research, which, when described in full, supports the very opposite conclusions. The methods Dr. Brady applied in developing her opinions violated multiple basic scientific principles for identifying reliable scientific evidence and interpreting research statistics.

10. In the assessment of the science of this field, prospective *cohort studies* represent high quality research, whereas *descriptive* and *cross-sectional studies* are of very low quality:

Figure 1: Study designs and increasing strength of evidence



Source: Basicmedical Key. Retrieved from <https://basicmedicalkey.com/common-research-designs-and-issues-in-epidemiology/>

The Brady report excluded most of the high quality, cohort studies, but repeatedly cited inferior cross-sectional survey studies.

11. There have been a total of eleven cohort studies of pre-pubescent children, of which, Dr. Brady cited *none*. In direct contrast with the plaintiffs’ claims of “immutability” (Plaintiff petition, para 48), all eleven studies came to the same conclusion: The majority of gender dysphoric children cease to feel dysphoric by puberty. There have also been eleven cohort studies of pubescent/adolescent children treated with puberty-blocking medication or cross-sex hormones. Of these, Dr. Brady cited six,¹ and neglected five.² In short, rather than provide a comprehensive

¹ I.e., de Vries, *et al.* (2011, 2014); van der Miesen, *et al.* (2020); Tordoff, *et al.* (2022); Allen, *et al.* (2019); and Achille, *et al.* (2020)

² Kuper, *et al.* (2020); Carmichael, *et al.* (2021); Hisle-Gorman, *et al.* (2021); Kaltiala, *et al.* (2020); Costa, *et al.* (2015)

or unbiased summary of the existing science, Dr. Brady’s report included only those studies which suggested patient improvement and excluded the studies showing failures of improvement and instances of deterioration. Selective citation such as this represents a gross violation of the basic principles of unbiased scientific analysis.

12. Moreover, of the six cohort studies cited, Dr. Brady also left out a pivotal aspect: The youth in these studies were all receiving psychotherapy at the same time as medical services. In research science, this is called a *confound*: It is not possible for Dr. Brady, or anyone else, to know which of these two co-occurring treatments produced which outcomes. Moreover, one of the six studies, Achille, *et al.* (2020), employed a research design that permitted comparison of medical versus psychotherapeutic methods, and it found medical interventions not to provide any significant improvement above psychotherapy. Importantly, because medical options entail greater risks than psychotherapy, the bar (i.e., the risk:benefit ratio) for medical intervention is higher than for psychotherapy.

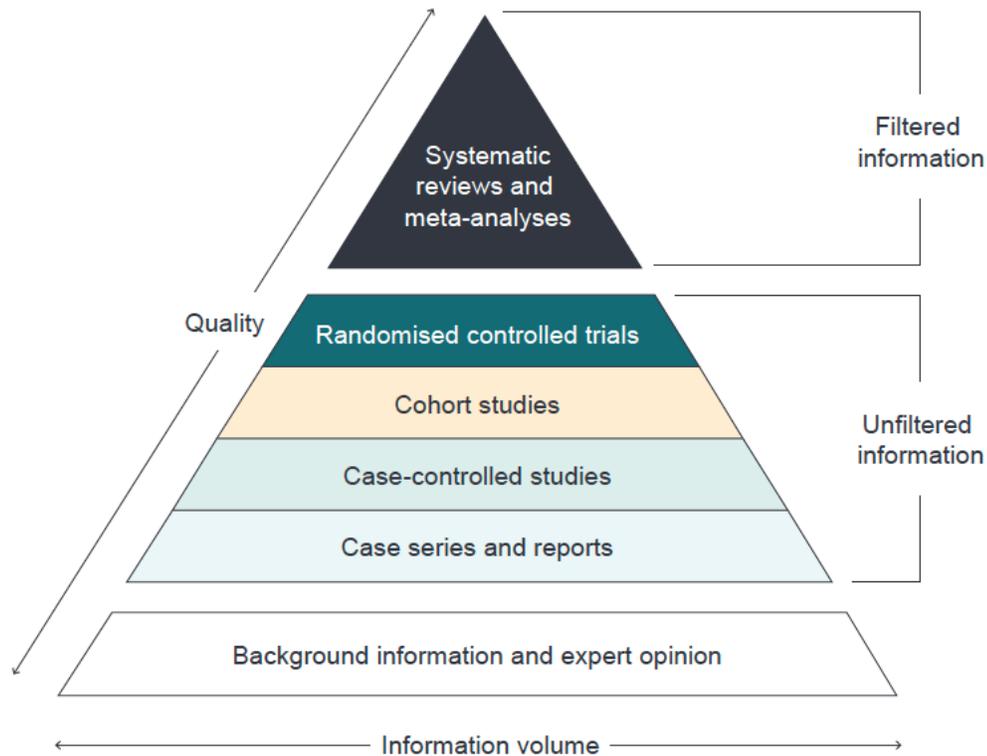
13. The much lower quality descriptive and cross-sectional survey studies included James, *et al.*, (2016);³ Turban, *et al.* (2020); and Turban, *et al.* (2022). It is straight-forward and inexpensive for interested individuals—professional researchers, political advocates, and marketing companies alike—to assemble a set of questions and post them online for anyone willing to respond to them. Such surveys represent the very earliest step of research projects and can help generate ideas for subsequent research that requires greater resources and time to complete. Unlike surveys of “convenience samples,” cohort studies consider a specific, identifiable group, such as attendees of a clinic or people with a distinct genetic feature, and

³ Dr. Brady’s declaration did not provide the complete citation, which is:
James, S. E., Herman, J. L., Rankin, S., Keisling, M., Mottet, L., & Anafi, M. (2016). *The Report of the 2015 U.S. Transgender Survey*. Washington, DC: National Center for Transgender Equality.

systematically follow up with them to observe and record changes over time (i.e., prospectively). Prospective cohort studies can answer questions issues that surveys cannot, and even a single cohort study can “outweigh” any number of survey studies. Because Internet surveys can be conducted within a few weeks or months, many such studies can be published quickly; however, a 10-year follow-up study of a cohort of gender dysphoric youth requires waiting those 10 years. Research on the present issue has largely been limited to surveys until only recently, with eight of the existing 11 studies published in 2019 or later.

14. Dr. Brady repeatedly relied also her personal recollections of providing medical services to this population, providing what science refers to as anecdotal evidence. Although reporting ongoing experience with such patients, Dr. Brady has never published and did not report engaging in any scientific, statistical, or other systematic analysis that would rule out potential biases to yield generalizable knowledge. In clinical science, expert opinion (in the clinical sense rather than the legal sense) represents only the lowest form of scientific evidence:

Figure 2: Pyramid of standards of evidence



Source: OpenMD. Retrieved from <https://openmd.com/guide/levels-of-evidence>

15. The advantages of accumulated personal experience is its low cost and potential utility when there do not exist systematic studies of the unique combination of variables represented by some cases. The disadvantages are that it is the most subject to human biases, such as recall bias and confirmation bias, as well as to sampling biases including both self-selection biases (who decides to come into the clinic in the first place) and any variables which led to dropping out of the clinic, leaving clinicians no capacity for determining why.

16. If there did not already exist multiple studies systematically studying cohorts of minors undergoing puberty-blocking or cross-sex hormone treatment, then expert opinion relying on anecdotal evidence might represent the only option available. That is not the current situation, however: Rather than engage in the scientifically valid research method of accepting higher order evidence over lower order evidence (expert opinion), the Brady report retained only the lowest.

17. I have also compared the claims in Dr. Antommaria’s declaration with the contents of the peer-reviewed research literature and according to the scientific principles and statistical methods of clinical science and sex research.⁴ The Antommaria declaration similarly failed to provide the relevant findings from the research literature. Of the 11 cohort studies of prepubescent children, his report included *none*. Of the 11 cohort studies of adolescent children, his report included *one*. Moreover, of the 24 references that Dr. Antommaria did cite, only 11 were peer-reviewed, and of those, only four pertained to gender dysphoria at all. Instead, Dr. Antommaria repeatedly deferred to the Endocrine Society guideline (cited as Hembree, *et al.*, 2017) as the source of his scientific claims.

18. Drs. Brady and Antommaria both egregiously misrepresent the Endocrine Society guideline, insinuating to the reader that the guideline indicates there being a strong scientific basis for the medical transition of minors, when it actually says the reverse:

The Endocrine Society, for example, developed its clinical practice guideline for the endocrine treatment of gender-dysphoric/gender-incongruent persons using the approach recommended by the Grading of Recommendations, Assessment, Development, and Evaluation group. The Society both grades the quality of the evidence and the strength of its recommendations. It recommends that “adolescents who meet diagnostic criteria for GD/gender incongruence, fulfill criteria for treatment, and are requesting treatment should initially undergo treatment to suppress pubertal development (2.1).
(Antommaria declaration, para 22)

The protocols and policies set forth by the Endocrine Society Guidelines and the WPATH Standards of Care are endorsed and cited as authoritative by the major professional medical and mental health associations in the United States.
(Brady declaration, para 43)

⁴ Dr. Antommaria has not yet provided a declaration in this case, however, she did provide a declaration in the case of *Jane Doe, et al., v. Abbott*, D-1-GN-22-977, which is a case from earlier this year with the same claims against the same Defendants.

Although Drs. Brady and Antommara both inform the reader that the Endocrine Society *assessed* these recommendation using the GRADE system, they both withheld the actual *results* of that assessment. The guideline used this rating system:

[S]trong recommendations use the phrase “we recommend” and the number 1, and weak recommendations use the phrase “we suggest” and the number 2.

Cross-filled circles indicate the quality of the evidence, such that ⊕○○○ denotes very low-quality evidence; ⊕⊕○○, low quality; ⊕⊕⊕○, moderate quality; and ⊕⊕⊕⊕, high quality.⁵

The section pertaining to adolescents was:

- 2.1. We suggest that adolescents who meet diagnostic criteria for GD/gender incongruence, fulfill criteria for treatment, and are requesting treatment should initially undergo treatment to suppress pubertal development. (2 |⊕⊕○○)
- 2.2. We suggest that clinicians begin pubertal hormone suppression after girls and boys first exhibit physical changes of puberty. (2 |⊕⊕○○)
- 2.3. We recommend that, where indicated, GnRH analogues are used to suppress pubertal hormones. (1 |⊕⊕○○)
- 2.4. In adolescents who request sex hormone treatment (given this is a partly irreversible treatment), we recommend initiating treatment using a gradually increasing dose schedule after a multidisciplinary team of medical and MHPs has confirmed the persistence of GD/gender incongruence and sufficient mental capacity to give informed consent, which most adolescents have by age 16 years. (1 |⊕⊕○○).
- 2.5. We recognize that there may be compelling reasons to initiate sex hormone treatment prior to the age of 16 years in some adolescents with GD/gender incongruence, even though there are minimal published studies of gender-affirming hormone treatments administered before age 13.5 to 14 years. As with the care of adolescents ≥16 years of age, we recommend that an expert multidisciplinary team of medical and MHPs manage this treatment. (1 |⊕○○○)
- 2.6. We suggest monitoring clinical pubertal development every 3 to 6 months and laboratory parameters every 6 to 12 months during sex hormone treatment. (2 |⊕⊕○○)

Hembree, *et al.* (2017), at 3871, column 1.

⁵ Hembree, *et al.*, 2017, at 3872.

Where Drs. Brady and Antommaria cite the Endocrine Society guideline to insinuate strong science, the GRADE assessment yielded exactly the reverse: In every category, without exception, the research quality was rated as “low” or “very low” (i.e., rated ⊕○○○ or ⊕⊕○○).

19. Dr. Brady similarly misrepresented the scientific strength represented by the WPATH Standards of Care document. Although referring to the WPATH Standards with many subjective adjectives, such as “widely adopted” (para 41), “authoritative” (para 43), and “extensively researched” (para 102), Dr. Brady’s report did not indicate that the WPATH standards have also undergone objective evaluation with a standardized approach, called the Appraisal of Guidelines for Research and Evaluation (“AGREE II”), as part of an appraisal of all published Clinical Practice Guidelines (CPGs) regarding sex and gender minority healthcare.⁶ Utilizing community stakeholders to set domain priorities for the evaluation, the assessment concluded that the guidelines regarding HIV and its prevention were of high quality, but that “[T]ransition-related CPGs tended to lack methodological rigour and rely on patchier, lower-quality primary research.”⁷ The WPATH guidelines received *unanimous* ratings of “Do not recommend.”⁸

20. Importantly, despite the repeated citation of WPATH and Endocrine Society as the scientific sources, most of the cohort studies of adolescent did not yet exist when those documents were produced. The WPATH standards were released in 2011, and Endocrine Society guideline, in 2017, whereas 8 of the 11 cohort studies were not published until 2019. That is, the WPATH and Endocrine Society documents were developed almost exclusively from Internet surveys and the necessarily inconclusive interpretations of the correlations in them. Now that cohort studies have become available, it is known that the survey results did not show what they were purported

⁶ Dahlen, *et al.*, 2021.

⁷ Dahlen, *et al.*, 2021, at 6.

⁸ Dahlen, *et al.*, 2021, at 7.

to show: It is *not* the case that youth receiving medical interventions improve in mental health, but that the youth with better mental health are permitted to undergo medical interventions. That is, medication use correlates with mental health, but it does *not cause* mental health—Rather, medication use *reflects* mental health. By relying on the WPATH and Endocrine Society documents, Drs. Brady and Antommara exclude consideration of 8/11’s of the most relevant research. They present no counter-argument to any of the content of this evidence. They neglect it entirely.

21. The reports from Dr. Brady and Dr. Antommara (and thereby plaintiff’s counsel) repeatedly violated another fundamental scientific principle, often known to the public as “*Correlation doesn’t imply causation.*” None of the plaintiffs’ documents cites any research studies employing the scientific methodologies necessary to draw causal conclusions: Indeed, no such studies exist. It is simply not scientifically possible for Drs. Brady or Antommara (or anyone else) to know which factors are causing which outcomes, yet both repeatedly assume causal relationships in the entire absence of scientific evidence of causality. Examples include:

- “can *cause* extreme distress” (Plaintiff petition, para 61)
- “can *cause* extreme distress” (Brady declaration, para 54)
- “given that gender dysphoria can *cause*...” (Brady declaration, para 38)
- “*effective*” (Antommara declaration, para 28)
- “the diagnosis *resulting* from the incongruity” (Brady declaration, para 32)
- “distress that *results* from the incongruity” (Brady declaration, para 33)
- “Medical treatment...*can* substantially *reduce*” (Plaintiff petition, para 70)
- “administration of puberty suppression has shown *to* significantly *reduce* suicidality” (Brady declaration, para 96)
- “Pubertal suppression has been shown *beneficial* in psychological functioning and *decreasing* suicidal ideation” (Brady declaration, para 56)
- “my clinical experience confirms that these treatments are highly *beneficial*” (Brady declaration, para 80)
- “These therapies are greatly *beneficial*” (Brady declaration, para 75)
- *exacerbating* lifelong gender dysphoria” (Brady declaration, para 97)
- “withholding pubertal suppression and hormone therapy...is extremely *harmful*” (Brady declaration, para 96)

- “Preventing gender affirming care...*will worsen* their gender dysphoria and health outcomes” (Brady declaration, para 95)
- “*prevent* severe harm including possible death from suicide” (Brady declaration, para 42)
- “these *risks* do *decline* when transgender individuals are supported” (Brady declaration, para 38).
- “*Can save* many lives given that reports of suicidality in trans youth...” (Brady declaration, para 56).
- “Withholding these therapies *can lead to* worsened mental health outcomes and suicide” (Brady declaration, para 67)
- “*life saving*” (Plaintiff petition, para 46)
- “*lifesaving*” (Antommara declaration, para 36)
- “*life-saving*” (Brady declaration, para 75)
- “*essential*” (Plaintiff petition, para 46)
- “*urgent*” (Antommara declaration, para 28)
- “assessed to have a medical *need*” (Brady declaration, para 48)
- “medically *necessary*” and “medical *necessity*” (Plaintiff petition, para’s 1, 16, 17, 28, 64, 68; Antommara declaration, e.g., para’s 6, 7, 19, 20, 21, 27, 32)

22. Despite such repeatedly confident language, it is not scientifically possible to know which way causality runs. One cannot support any such causal claims on the basis of the existing, entirely correlational, science. When a survey shows a correlation between medication and mental health, it is possible that the medications caused improvement in the mental health variables, and it is possible that only those patients with superior mental health were permitted to receive hormonal treatments in the first place. (Both situations can also be true at the same time, with each factor making partial contributions.) Neither Dr. Brady nor Dr. Antommara provided evidence to support one interpretation over the other, instead failing to mention any others at all. Moreover, there now exists a generation of more advanced studies, those employing cohort designs, which contradict the first interpretation and instead support the second. These are summarized in their own section to follow.

23. Of the many terms in the plaintiff documents that erroneously claim causality, the most directly relevant is their repeated use of “medically necessary.” Whereas the other misused terms convey inaccuracies about the known science, the term “medically necessary” has special technical

meanings in many legal and other contexts, especially regarding insurance coverage, which do not necessarily match the lay public's understanding and everyday use of the term. The plaintiffs' documents obscure which of these meanings applies when.

24. Scientifically, "*necessary*" is a causal statement, and there do not exist any studies using a research design capable of yielding causal conclusions. There only exist observational correlations, and such correlations are scientifically incapable of supporting the claim that medical transition is necessary, medically or otherwise.

25. Dr. Antommara provided a definition of 'medically necessary' from HealthCare.gov: "[H]ealth care services or supplies needed to diagnose or treat an illness, injury, condition, disease or its symptoms *and that meet accepted standards of medicine*" (para 21, italics added). Antommara asserted flat out that "Gender affirming healthcare is medically necessary" (Antommara declaration, paragraph 21), but cited no evidence to indicate meeting those standards. As noted already, the only evidence offered in the Antommara declaration was the Endocrine Society guideline which explicitly and consistently rated the evidence as low and very low quality, never mind meeting the standards required for establishing necessity or any other causal claim.

26. The declaration defines gender identity as an inner sense. The phrase is increasingly popular, but neither "inner sense" nor any similar phrase is scientifically valid. In science, a valid construct must be both objectively measurable and falsifiable. The concept of an "inner sense" is neither. If claims of one's inner sense represented scientifically meaningful evidence, then science would have evidence of people's past life experiences. To base decisions on subjective and unfalsifiable accounts is to fail to provide evidence-based medicine. Gender identity is unlike emotions, which are associated with physiological changes such as heartrate and brain activity. Gender identity is unlike sexual orientation, which is associated with objectively ascertained

evidence, including brain anatomy. Gender Dysphoria is unlike disorders of sexual development (DSD's, also called "intersex conditions"), again in that DSDs are objectively verifiable with physical measures, whereas gender identity is not. DSDs include, for example, genetic disorders which prevent a person's body from responding to testosterone, a disease called Androgen Insensitivity Syndrome.⁹ Still more unlike gender identity, the physical nature of such disorders allows many of them to be detected before birth, whereas gender identity has no such feature.

27. Dr. Brady (and plaintiff's counsel) repeatedly belittled the risks posed by medicalized transition procedures by comparing them to treatments for physical medical disorders, relying on Dr. Brady's experience with disorders of sexual development (DSD's) to inform her treatment of gender dysphoria:

- "Effects are not unique to the use of these hormones in transgender individuals" (Brady declaration, para 78)
- "Venous thromboembolism risk is not unique to treating gender dysphoria" (Brady declaration, para 81)
- "Other side effects noted, again, are not unique to transgender individuals placed on these therapies" (Brady declaration, para 82)
- "Treatment for gender dysphoria is in no way the riskiest or potentially harmful" (Brady declaration, para 88)
- "treatments use to treat gender dysphoria are also used to treat other conditions in minors with comparable side effects and risks" (Plaintiff petition, para 73).
- "Many forms of medical treatment carry comparable risks and side effects. Treatment for gender dysphoria is not uniquely risky" (Plaintiff petition, para 75).

28. That comparison avoids the central point: For DSD's and other physical disorders there exists objective evidence of the disorder. There exist medical tests capable of objectively confirming the presence of DSD's with extreme accuracy, and medical decision-making can be made on the basis of very high levels of confidence.¹⁰ No such objective verification exists with regard to gender dysphoria, however. Diagnoses rely entirely on subjective reports and whether

⁹ E.g., Vilain, 2006.

¹⁰ Audi, *et al.*, 2018; Witche, 2018.

the clinician believes the self-report of the child. Whereas DSD's can be treated when confirmed with physical evidence, treatment of GD is proceeding *in spite of* all available physical evidence.

29. In these comparisons, Dr. Brady again provides only one side of the relevant question. *Psychotherapy also represents healthcare* and poses *zero* attendant physical risk. The relevant comparison is not medical intervention versus nothing, but medical intervention versus psychotherapy. As demonstrated by the cohort studies research cited herein (including those cited by Dr. Brady) psychotherapy is as consistently associated as medical intervention with mental health improvement among these youth. All surgery entails risk. The side-effects associated with of puberty blockers and cross-sex hormones include loss of bone density, decrease in some memory functions, and increases in blot clots, stroke, and heart attack.¹¹

30. Dr. Brady claimed gender identity “cannot be voluntarily changed” (Brady declaration, para 27). In actual clinical practice, that is rarely the relevant issue. The far more typical situation is youth who are *mistaken* about their gender identity. These youth are misinterpreting their experiences to indicate they are transgender, or they are exaggerating their descriptions of their experiences in service of attention-seeking or other psychological needs. The claim is not merely lacking any science to support it; the claim itself defies scientific thinking. In science, it is not possible to know that gender identity cannot be changed: We can know only that we lack evidence of such a procedure. In the scientific method, it remains eternally possible for evidence of such a treatment to emerge, and unlike sexual orientation's long history with conversion therapy, there have not been systematic attempts to change gender identity.

31. Whereas Dr. Brady's expert report referred to *voluntary* change in gender identity (allowing for the possibility of spontaneous changes), the plaintiffs' petition instead referred to

¹¹ Lee, *et al.*, 2020; Getahun, *et al.*, 2018.

gender identity as entirely “*immutable*,” (Plaintiff petition, para 48), that is, not allowing for any change at all. No evidence or citation accompanied this stronger claim. It is not at all apparent upon what basis such a statement could be made: It has been the unanimous conclusion of every follow-up study of gender dysphoric children ever conducted, not only that gender identity does change, but also that it changes in the large majority of cases, as documented in its own section of the present report. Such claims also deny the consistent reports of youth de-transitioning¹² and even re-transitioning.¹³

32. Dr. Brady refers to gender identity as “*innate*” (Brady declaration, para 29), having a “strong biological basis” (Brady declaration, para 27). Such claims misrepresent the research literature. Although brain imaging is capable of distinguishing sex and sexual orientation on the basis of neuroanatomical differences, gender identity has repeatedly failed to demonstrate any such analogous features.¹⁴ Rather, the consensus of the scientists (including me) is that childhood onset gender dysphoria is neuroanatomically related to homosexuality, whereas adult-onset gender dysphoria represents an entirely distinct phenomenon that seems similar only superficially.¹⁵ I myself originally published these observations in the research literature, which have been confirmed: As noted by Guillamon, *et al.* (2016), “Following this line of thought, Cantor (2011, 2012, but also see Italiano, 2012) has recently suggested that Blanchard’s predictions have been fulfilled in two independent structural neuroimaging studies....*Cantor seems to be right*”.¹⁶ To the extent that any neuroanatomical differences have been reported, they have been attributable to sexual orientation rather than gender identity.

¹² Littman, 2021; Vandenbusshe, 2021.

¹³ Turban, *et al.*, 2021.

¹⁴ Baldinger-Melich, *et al.*, 2020; Skorska, *et al.*, 2021.

¹⁵ Mueller, *et al.*, 2021

¹⁶ *c.f.*, Cantor, 2011; Cantor, 2012; Guillamon, *et al.*, p. 1634, italics added; Italiano, 2012.

33. There is no basis by which the petition and supporting documents to claim there is a “medical consensus” (Plaintiff petition, para 16) or “established best practices” (Plaintiff petition, para 121), to follow guidelines that are “well-established” (Plaintiff petition, para 47) “widely accepted” (Plaintiff petition, para 57). Dr. Brady and Dr. Antommara are in error to assert there exists a consensus where there does not. Indeed, that there exists enormous controversy and disagreement among experts is itself the topic of major media coverage, including the New York Times’ *The Battle Over Gender Therapy: More teenagers than ever are seeking transitions, but the medical community that treats them is deeply divided about why—and what to do to help them.*¹⁷ As detailed within its own section of the present report, the full scientific literature on the outcomes of medical transition of minors has been evaluated by the health care departments of several national governments, including Sweden¹⁸ and the U.K.,¹⁹ with each finding the research to be of very low quality, receiving the lowest quality ratings available. No matter one’s views on these issues, they cannot be resolved when their very existence is denied.

34. The plaintiffs’ documents repeatedly refer to a national medical consensus on the treatment of gender dysphoric minors. This, however, fails to convey that the international consensus of public health care systems around the world is the opposite, and it is the U.S. which stands as an international outlier. The specific developments in Australia, the United Kingdom, France, Sweden, and Finland are summarized in their own section to follow.

35. In sum, the Brady and Antommara reports provided only a cherry-picked selection of the science, to which they failed to apply scientific methods of data interpretation. Their multiple instance sharing only decontextualized quotes grossly misrepresented the documents they cited.

¹⁷ Bazelon, 2022.

¹⁸ Swedish Agency for Health Technology Assessment and Assessment of Social Services, 2019.

¹⁹ U.K. National Health Service (NHS), 2021.

Their conclusions contradict what the existing research evidence and scientific method reveal.

IV. Science of Gender Dysphoria and Transsexuality

A. Introduction

36. One of the most widespread public misunderstandings about transsexualism and people with gender dysphoria is that all cases of gender dysphoria represent the same phenomenon; however, the clinical science has long and consistently demonstrated that gender dysphoric children (cases of *early-onset* gender dysphoria) do not represent the same phenomenon as adult gender dysphoria (cases of *late-onset* gender dysphoria),²⁰ merely attending clinics at younger ages. That is, gender dysphoric children are not simply younger versions of gender dysphoric adults. They differ in every known regard, from sexual interest patterns, to responses to treatments. A third presentation has recently become increasingly observed among people presenting to gender clinics: These cases appear to have an onset in adolescence in the absence of any childhood history of gender dysphoria. Such cases have been called adolescent-onset or “rapid-onset” gender dysphoria (ROGD). Very many public misunderstandings and expert misstatements come from misattributing evidence or personal experience from one of these types to another.

B. Adult-Onset Gender Dysphoria

37. People with adult-onset gender dysphoria typically attend clinics requesting transition services in mid-adulthood, usually in their 30s or 40s. Such individuals are nearly exclusively biological males.²¹ They typically report being sexually attracted to women and rarely showed gender atypical (effeminate) behavior or interests in childhood (or adulthood). Some individuals express being sexually attracted to both men and women, and some profess asexuality, but very

²⁰ Blanchard, 1985.

²¹ Blanchard, 1990, 1991.

few indicate having a primary sexual interest only in men.²² Cases of adult-onset gender dysphoria are typically associated with a sexual interest pattern involving themselves in female form (medically, a paraphilia called autogynephilia).²³

1. Outcome Studies of Transition in Adult-Onset Gender Dysphoria

38. Clinical research facilities studying gender dysphoria have repeatedly reported low rates of regret (less than 3%) among adult-onset patients who underwent complete transition (*i.e.*, social, plus hormonal, plus surgical transition). This has been widely reported by clinics in Canada,²⁴ Sweden,²⁵ and the Netherlands.²⁶

39. Importantly, each of the Canadian, Swedish, and Dutch clinics for adults with gender dysphoria all performed “gate-keeping” procedures, disqualifying from medical services people with mental health or other contraindications. One would not expect the same results to emerge in the absence of such gate-keeping or when gate-keepers apply only minimal standards or cursory assessment.

40. An important caution applies to interpreting these results: The side-effect of removing these people from the samples of transitioners is that if a researcher compared the average mental health of individuals coming into the clinic with the average mental health of individuals going through medical transition, then the post-transition group would appear to show a substantial improvement, even though transition had *no effect at all*: The removal of people with poorer mental health created the statistical illusion of improvement among the remaining people.

2. Mental Health Issues in Adult-Onset Gender Dysphoria

41. The research evidence on mental health issues in gender dysphoria indicates it to be

²² Blanchard, 1988.

²³ Blanchard 1989a, 1989b, 1991.

²⁴ Blanchard, *et al.*, 1989.

²⁵ Dhejneberg, *et al.*, 2014.

²⁶ Wiepjes, *et al.*, 2018.

different between adult-onset versus adolescent-onset versus prepubescent-onset types. The co-occurrence of mental illness with gender dysphoria in adults is widely recognized and widely documented.²⁷ A research team in 2016 published a comprehensive and systematic review of all studies examining rates of mental health issues in transgender adults.²⁸ There were 38 studies in total. The review indicated that many studies were methodologically weak, but nonetheless demonstrated (1) that rates of mental health issues among people are highly elevated both before *and after* transition, (2) but that rates were less elevated among those who completed transition. Analyses were not conducted in a way so as to compare the elevation in mental health issues observed among people newly attending clinics to improvement after transition. Also, several studies showed more than 40% of patients to become “lost to follow-up.” With attrition rates that high, it is unclear to what extent the information from the remaining participants would accurately reflect the whole population. The very high rate of “lost to follow-up” leaves open the possibility of considerably more negative results overall.

42. The long-standing and consistent finding that gender dysphoric adults continue to show high rates of mental health issues after transition indicates a critical point: To the extent that gender dysphoric children resemble adults, we should not expect mental health to improve as a result of transition—that is, transition does not appear to be what causes mental health improvement. Rather, mental health issues should be resolved before any transition, as has been noted in multiple standards of care documents, as detailed in their own section of this report.

C. Childhood-Onset (Pre-pubertal) Gender Dysphoria

1. Cohort Studies Show Most Children Desist by Puberty

43. Prepubescent children (and their parents) have been approaching mental health

²⁷ See, e.g., Hepp, *et al.*, 2005.

²⁸ Dhejne, *et al.*, 2016.

professionals for help with their unhappiness with their sex and belief they would be happier living as the other for many decades. The large majority of childhood onset cases of gender dysphoria occur in biological males, with clinics reporting 2–6 biological male children to each female.²⁹

44. In total, there have been 11 outcomes studies of these children, listed in Appendix 2. In sum, despite coming from a variety of countries, conducted by a variety of labs, using a variety of methods, all spanning four decades, every study without exception has come to the identical conclusion: Among prepubescent children who feel gender dysphoric, the majority cease to want to be the other gender over the course of puberty—ranging from 61–88% desistance across the large, prospective studies. Such cases are often referred to as “desisters,” whereas children who continue to feel gender dysphoric are often called “persisters.”

45. Notably, in most cases, these children were receiving professional psychosocial support across the study period aimed, not at affirming cross-gender identification, but at resolving stressors and issues potentially interfering with desistance. While beneficial to these children and their families, the inclusion of therapy in the study protocol represents a complication for the interpretation of the results: It is not possible to know to what extent the outcomes were influenced by the psychosocial support or would have emerged regardless. In science, this is referred to as a confound.³⁰

46. While the absolute number of those who present as prepubescent children with gender dysphoria and “persist” through adolescence is very small in relation to the total population, persistence in some subjects was observed in each of these studies. Thus, a clinician cannot take either outcome for granted.

47. It is because of this long-established and unanimous research finding of desistance

²⁹ Cohen-Kettenis, *et al.*, 2003; Steensma, *et al.*, 2018; Wood, *et al.*, 2013.

³⁰ Skelly *et al.*, 2012.

being probable but not inevitable, that the “watchful waiting” method became the standard approach for assisting gender dysphoric children. The balance of potential risks to potential benefits is very different for groups likely to desist versus groups unlikely to desist: If a child is very likely to persist, then taking on the risks of medical transition might be more worthwhile than if that child is very likely to desist in transgender feelings.

48. The consistent observation of high rates of desistance among pre-pubertal children who present with gender dysphoria demonstrates a pivotally important—yet often overlooked—feature: because gender dysphoria so often desists on its own, clinical researchers cannot assume that therapeutic intervention cannot facilitate or speed desistance for at least some patients. That is, gender identity is not the same as sexual orientation, and it cannot be assumed that gender identity is as unchangeable as is sexual orientation. Such is an empirical question, and there has not yet been any such study.

49. It is also important to note that research has not yet identified any reliable procedure for discerning which children who present with gender dysphoria will persist, as against the majority who will desist, absent transition and “affirmation.” Such a method would be valuable, as the more accurately that potential persisters can be distinguished from desisters, the better the risks and benefits of options can be weighted. Such “risk prediction” and “test construction” are standard components of applied statistics in the behavioral sciences. Multiple research teams have reported that, on average, groups of persisters are somewhat more gender non-conforming than desisters, but not so different as to usefully predict the course of a particular child.³¹

50. In contrast, one research team (the aforementioned Olson group) claimed the opposite, asserting that they developed a method of distinguishing persisters from desisters, using a single

³¹ Singh, *et al.* (2021); Steensma *et al.*, 2013.

composite score representing a combination of children’s “peer preference, toy preference, clothing preference, gender similarity, and gender identity.”³² They reported a statistical association (mathematically equivalent to a correlation) between that composite score and the probability of persistence. As they indicated, “Our model predicted that a child with a gender-nonconformity score of .50 would have roughly a .30 probability . . . of socially transitioning. By contrast, a child with gender-nonconformity score of .75 would have roughly a .48 probability.”³³ Although the Olson team declared that “social transitions may be predictable from gender identification and preferences,”³⁴ their actual results suggest the opposite: The gender-nonconforming group who went on to transition (socially) had a mean composite score of .73 (which is less than .75), and the gender-nonconforming group who did not transition had a mean composite score of .61, also less than .75.³⁵ Both of those are lower than the value of .75, so both of those would be more likely than not to desist, rather than to proceed to transition. That is, Olson’s model does not distinguish likely from unlikely to transition; rather, it distinguishes unlikely from even less likely to transition.

51. Although it remains possible for some future discovery to yield a method to identify with sufficient accuracy which gender dysphoric children will persist, there does not exist such a method at the present time. Moreover, in the absence of long-term follow-up, it cannot be known what proportions come to regret having transitioned and then *detransition*. Because only a minority of gender dysphoric children persist in feeling gender dysphoric in the first place, “transition-on-demand” increases the probability of unnecessary transition and unnecessary medical risks.

52. It was this state of the science—that the majority of prepubescent children will desist

³² Rae, *et al.*, 2019, at 671.

³³ Rae, *et al.*, 2019, at 673.

³⁴ Rae, *et al.*, 2019, at 669.

³⁵ Rae, *et al.*, 2019, Supplemental Material at 6, Table S1, bottom line.

in their feelings of gender dysphoria and that we lack an accurate method of identifying which children will persist—that led to the development of a clinical approach, The Dutch Protocol,³⁶ including its “Watchful Waiting” period. Internationally, the Dutch Protocol remains the most empirically supported protocol for the treatment of children with gender dysphoria.

2. Cohort Studies of Puberty-Blockers and Cross-Sex Hormones

53. Very many strong claims have appeared in the media and on social media asserting that transition results in improved mental health or, contradictorily, in decreased mental health. In the highly politicized context of gender and transgender research, many outlets have cited only the findings which appear to support one side, cherry-picking from the complete set of research reports. In total, there have been 11 prospective outcomes studies following up gender dysphoric children undergoing medically induced suppression of puberty or cross-sex hormone treatment. Four studies failed to find evidence of improvement in mental health functioning at all, and some groups deteriorated on some variables.³⁷ Five studies successfully identified evidence of improvement, but because patients received psychotherapy along with medical services, which of those treatments caused the improvement is unknowable.³⁸ In the remaining two studies, both psychotherapy and medical interventions were provided, but the studies were designed in such a way as to allow the effects of psychotherapy to be separated from the effects of the puberty-blocking medications.³⁹ As detailed in the following, neither identified benefits of medication over psychotherapy alone.

a) Four found no mental health improvement

54. Carmichael, *et al.* (2021) recently released its findings from the Tavistock and Portman

³⁶ Delemarre-van de Waal & Cohen-Kettenis (2006).

³⁷ Carmichael, *et al.*, 2021; Hisle-Gorman, *et al.*, 2021; Kaltiala, *et al.*, 2020; Kuper, *et al.*, 2020.

³⁸ Allen, *et al.*, 2019; de Vries, *et al.*, 2011, 2014; Tordoff, *et al.*, 2022; van der Miesen, *et al.*, 2020.

³⁹ Achille, *et al.*, 2020; Costa, *et al.*, 2015.

clinic in the U.K.⁴⁰ Study participants were ages 12–15 (Tanner stage 3 for natal males, Tanner stage 2 for natal females) and were repeatedly tested before beginning puberty-blocking medications and then every six months thereafter. Cases exhibiting serious mental illnesses (*e.g.*, psychosis, bipolar disorder, anorexia nervosa, severe body-dysmorphic disorder unrelated to gender dysphoria) were excluded. Relative to the time point before beginning puberty suppression, there were *no* significant changes in any psychological measure, from either the patients’ or their parents’ perspective.

55. In Kuper, *et al.* (2020), a multidisciplinary team from Dallas published a prospective follow-up study which included 25 youths as they began puberty suppression.⁴¹ (The other 123 study participants were undergoing cross-sex hormone treatment.) Interventions were administered according to practice guidelines from the Endocrine Society.⁴² Their analyses found *no statistically significant changes* in the group undergoing puberty suppression on any of the nine measures of wellbeing measured, spanning tests of body satisfaction, depressive symptoms, or anxiety symptoms.⁴³ Notably, whereas the Dutch Protocol includes age 12 as a minimum for puberty suppression treatment, this team provided such treatment beginning at age 9.8 years (full range: 9.8–14.9 years).⁴⁴

56. Hisle-Gorman, *et al.* (2021) analyzed military families’ healthcare data to compare 963 transgender and gender-diverse youth before versus after hormonal treatment, with their non-gender dysphoric siblings as controls. The study participants included youth undergoing puberty-blocking as well as those undergoing cross-sex hormone treatment, but these subgroups did not

⁴⁰ Carmichael, *et al.*, 2021.

⁴¹ Kuper, *et al.*, 2020, at 5.

⁴² Kuper, *et al.*, 2020, at 3, referring to Hembree, *et al.*, 2017.

⁴³ Kuper, *et al.*, 2020, at Table 2.

⁴⁴ Kuper, *et al.*, 2020, at 4.

differ from each other. Study participants had a mean age of 18 years when beginning the study, but their initial clinical contacts and diagnoses occurred at a mean age of 10 years. According to the study, “mental health care visits overall did not significantly change following gender-affirming pharmaceutical care,”⁴⁵ yet, “psychotropic medication use *increased*,”⁴⁶ indicating *deteriorating* mental health.

57. Kaltiala et al. (2020) similarly reported that after cross-sex hormone treatment, “Those who had psychiatric treatment needs or problems in school, peer relationships and managing everyday matters outside of home continued to have problems during real-life.”⁴⁷ They concluded, “Medical gender reassignment is not enough to improve functioning and relieve psychiatric comorbidities among adolescents with gender dysphoria. Appropriate interventions are warranted for psychiatric comorbidities and problems in adolescent development.”⁴⁸

b) Five confounded psychotherapy with medical treatment

58. The initial enthusiasm for medical blocking of puberty followed largely from early reports from the Dutch clinical research team suggesting at least some mental health improvement.⁴⁹ It was when subsequent research studies failed to replicate those successes that it became apparent that the successes were due, not to the medical interventions, but to the psychotherapy that accompanied such interventions in most clinics, including the Dutch clinic.

59. The Dutch clinical research team followed up a cohort of youth at their clinic undergoing puberty suppression⁵⁰ and later cross-hormone treatment and surgical sex

⁴⁵ Hisle-Gorman, et al., 2021, at 1448.

⁴⁶ Hisle-Gorman, et al., 2021, at 1448, emphasis added.

⁴⁷ Kaltiala et al., 2020, at 213.

⁴⁸ Kaltiala et al., 2020, at 213.

⁴⁹ de Vries, *et al.*, 2011; de Vries, *et al.*, 2014

⁵⁰ de Vries, *et al.*, 2011.

reassignment.⁵¹ The youth improved on several variables upon follow-up as compared to pre-suppression measurement, including depressive symptoms and general functioning. No changes were detected in feelings of anxiety or anger or in gender dysphoria as a result of puberty suppression; however, natal females using puberty suppression suffered *increased* body dissatisfaction both with their secondary sex characteristics and with nonsexual characteristics.⁵²

60. As the report authors noted, while it is possible that the improvement on some variables was due to the puberty-blockers, it is also possible that the improvement was due to the mental health support, and it is possible that the improvement occurred only on its own with natural maturation. So any conclusion that puberty blockers improved the mental health of the treated children is not justified by the data. Because this study did not include a control group (another group of adolescents matching the first group, but *not* receiving medical or social support), these possibilities cannot be distinguished from each other. The authors of the study were explicit in noting this themselves: “All these factors may have contributed to the psychological well-being of these gender dysphoric adolescents.”⁵³

61. In a 2020 update, the Dutch clinic reported continuing to find improvement in transgender adolescents’ psychological functioning, reaching age-typical levels, “after the start of specialized transgender care involving puberty suppression.”⁵⁴ Unfortunately, because the transgender care method of that clinic involves both psychosocial support and puberty suppression, it again cannot be known which of those (or their combination) is driving the improvement. Also, the authors indicate that the changing demographic and other features among gender dysphoric youth might have caused the treated group to differ from the control group in unknown ways. As

⁵¹ de Vries, *et al.*, 2014.

⁵² Biggs, 2020.

⁵³ de Vries, *et al.* 2011, at 2281.

⁵⁴ van der Miesen, *et al.*, 2020, at 699.

the study authors noted again, “The present study can, therefore, not provide evidence about the direct benefits of puberty suppression over time and long-term mental health outcomes.”⁵⁵

62. Allen, *et al.* (2019) reported on a sample of 47 youth, ages 13–20, undergoing cross-sex hormone treatment. They reported observing increases in measures of well-being and decreases in measures of suicidality; however, as the authors also noted, “whether a patient is actively receiving psychotherapy” may have been a confounding variable.⁵⁶

63. Tordoff, *et al.* (2022) reported on a sample of youth, ages 13–20 years, treated with either puberty blockers or cross-sex hormones. There were improvements in mental health functioning; however, 62.5% of the sample was again receiving mental health therapy.⁵⁷

c) Two showed no advantage of medical intervention

64. Costa, *et al.* (2015) reported on preliminary outcomes from the Tavistock and Portman NHS Foundation Trust clinic in the UK. They compared the psychological functioning of one group of youth receiving psychological support with a second group receiving both psychological support as well as puberty blocking medication. Both groups improved in psychological functioning over the course of the study, but no statistically significant differences between the groups was detected at any point.⁵⁸ This clinical team subsequently released its final report, finding that neither group actually experienced significant improvement,⁵⁹ making moot any discussion of the source any improvement.

65. Achille, *et al.* (2020) at Stony Brook Children’s Hospital in New York treated a sample of 95 youth with gender dysphoria, providing follow-up data on 50 of them. (The report did not

⁵⁵ van der Miesen, *et al.*, 2020, at 703.

⁵⁶ Allen, *et al.*, 2019.

⁵⁷ Tordoff, *et al.*, 2022, Table 1.

⁵⁸ Costa, *et al.*, 2015, at 2212 Table 2.

⁵⁹ Carmichael, *et al.*, 2021.

indicate how these 50 were selected from the 95.) As well as receiving puberty blocking medications, “Most subjects were followed by mental health professionals. Those that were not were encouraged to see a mental health professional.”⁶⁰ The puberty blockers themselves “were introduced in accordance with the Endocrine Society and the WPATH guidelines.”⁶¹ Upon follow-up, some incremental improvements were noted; however, after statistically adjusting for psychiatric medication and engagement in counselling, “*most predictors did not reach statistical significance.*”⁶² That is, puberty blockers did not improve mental health any more than did mental health care on its own.

d) Conclusions

66. The authors of the original Dutch studies were careful not to overstate the implications of their results, “We *cautiously* conclude that puberty suppression *may be* a valuable *element* in clinical management of adolescent gender dysphoria.”⁶³ Nonetheless, many other clinics and clinicians intrepidly proceeded on the basis of only the perceived positives, broadened the range of people beyond those represented in the research findings, and removed the protections applied in the procedures that led to those outcomes. Many clinics and individual clinicians have reduced the minimum age for transition to 10 instead of 12. While the Dutch Protocol involves interdisciplinary teams of clinicians, many clinics now rely on a single assessor, in some cases one without adequate professional training in childhood and adolescent mental health. Comprehensive, longitudinal assessments (*e.g.*, 1 to 2 *years*⁶⁴) became approvals after one or two assessment sessions. Validated, objective measures of youths’ psychological functioning were replaced with

⁶⁰ Achille, *et al.*, 2020, at 2.

⁶¹ Achille, *et al.*, 2020, at 2.

⁶² Achille, *et al.*, 2020, at 3 (*italics added*).

⁶³ de Vries, *et al.* 2011, at 2282, *italics added*.

⁶⁴ de Vries, *et al.*, 2011.

clinicians' subjective (and first) opinions, often reflecting only the clients' own self-report. Systematic recordings of outcomes, so as to allow for detection and correction of clinical deficiencies, were eliminated.

67. Notably, Dr. Thomas Steensma, central researcher of the Dutch clinic, has decried other clinics for “blindly adopting our research” despite the indications that those results may not actually apply: “We don’t know whether studies we have done in the past are still applicable to today. Many more children are registering, and also a different type.”⁶⁵ Steensma opined that “every doctor or psychologist who is involved in transgender care should feel the obligation to do a good pre- and post-test.” But few if any are doing so.

3. Social transition may increase persistence/decrease desistance

68. In addition to these, another study followed-up children, ages 3–12 (average of 8), who had already made a complete, binary (rather than intermediate) social transition, including a change of pronouns.⁶⁶ (Olson et al., in press). The study did not employ DSM-5 diagnoses, as “Many parents in this study did not believe that such diagnoses were either ethical or useful and some children did not experience the required distress criterion.”⁶⁷ Rather, children were classified according to their pronoun preference. In contrast with the studies of non-transitioned children, only few (7.3%) in the Olson sample desisted (7.3%, which Olson et al. called “retransitioned”).⁶⁸ Although the Olson team did not discuss it, their finding matches the Zucker hypothesis that social transition itself represents an active intervention, such that social transition causes the persistence (or, conversely, that social transition prevents desistance, such as by withholding from the child

⁶⁵ Tetelepta, 2021.

⁶⁶ Olson, *et al.*, in press.

⁶⁷ Olson, *et al.*, in press.

⁶⁸ Olson, *et al.*, in press.

opportunities to develop confidence as members of their biological sex).⁶⁹

4. Mental Health Issues in Childhood-Onset Gender Dysphoria

69. As shown by the outcomes studies, there is little evidence that transition improves the mental well-being of children. As shown repeatedly by clinical guidelines from multiple professional associations, mental health issues are expected or required to be resolved *before* undergoing transition. The reasoning behind these conclusions is that children may be expressing gender dysphoria, not because they are experiencing what gender dysphoric adults report, but because they mistake what their experiences indicate or to what they might lead. For example, a child experiencing depression from social isolation might develop the hope—and the unrealistic expectation—that transition will help them fit in, this time as and with the other sex.

70. If a child undergoes transition, discovering only then that their mental health or social situations will not in fact change, the medical risks and side-effects (such as sterilization) will have been borne for no reason. If, however, a child resolves the mental health issues first, with the gender dysphoria resolving with it (which the research literature shows to be the case in the large majority), then the child need not undergo transition at all, but retains the opportunity to do so later.

71. Elevated rates of multiple mental health issues among gender dysphoric children are reported throughout the research literature. A formal analysis of children (ages 4–11) undergoing assessment at the Dutch child gender clinic showed 52% fulfilled criteria for a formal DSM diagnosis.⁷⁰ A comparison of the children attending the Canadian versus Dutch child gender dysphoria clinic showed only few differences between them, but a large proportion in both groups were diagnosable with clinically significant mental health issues. Results of standard assessment

⁶⁹ Singh, *et al.*, 2021; Zucker, 2018, 2020.

⁷⁰ Wallien, *et al.*, 2007.

instruments (Child Behavior Check List, or CBCL) demonstrated that the average score was in the clinical rather than healthy range, among children in both clinics.⁷¹ When expressed as percentages, among 6–11-year-olds, 61.7% of the Canadian and 62.1% of the Dutch sample were in the clinical range.

72. A systematic, comprehensive review of all studies of Autism Spectrum Disorders (ASDs) and Attention-Deficit Hyperactivity Disorder (ADHD) among children diagnosed with gender dysphoria was recently conducted. It was able to identify a total of 22 studies examining the prevalence of ASD or ADHD in youth with gender dysphoria. Studies reviewing medical records of children and adolescents referred to gender clinics showed 5–26% to have been diagnosed with ASD.⁷² Moreover, those authors gave specific caution on the “considerable overlap between symptoms of ASD and symptoms of gender variance, exemplified by the subthreshold group which may display symptoms which could be interpreted as either ASD or gender variance. Overlap between symptoms of ASD and symptoms of GD may well confound results.”⁷³ The rate of ADHD among children with GD was 8.3–11%. Conversely, in data from children (ages 6–18) with Autism Spectrum Disorders (ASDs) show they are more than seven times more likely to have parent-reported “gender variance.”⁷⁴

D. Adolescent-Onset Gender Dysphoria

1. Features of Adolescent-Onset Gender Dysphoria

73. In the social media age, a third profile has recently begun to present clinically or socially, characteristically distinct from the two previously identified profiles.⁷⁵ Unlike adult-onset

⁷¹ Cohen-Kettenis, *et al.*, 2003, at 46.

⁷² Thrower, *et al.*, 2020.

⁷³ Thrower, *et al.*, 2020, at 703.

⁷⁴ Janssen, *et al.*, 2016.

⁷⁵ Kaltiala-Heino, *et al.*, 2015; Littman, 2018.

or childhood-onset gender dysphoria, this group is predominately biologically female. This group typically presents in adolescence, but lacks the history of cross-gender behavior in childhood like the childhood-onset cases have. It is that feature which led to the term Rapid Onset Gender Dysphoria (ROGD).⁷⁶ The majority of cases appear to occur within clusters of peers and in association with increased social media use⁷⁷ and especially among people with autism or other neurodevelopmental or mental health issues.⁷⁸

74. It cannot be easily determined whether the self-reported gender dysphoria is a result of other underlying issues or if those mental health issues are the result of the stresses of being a sexual minority, as some writers are quick to assume.⁷⁹ (The science of the *Minority Stress Hypothesis* appears in its own section.) Importantly, and unlike other presentations of gender dysphoria, people with rapid-onset gender dysphoria often (47.2%) experienced *declines* rather than improvements in mental health when they publicly acknowledged their gender status.⁸⁰ Although long-term outcomes have not yet been reported, these distinctions demonstrate that one cannot apply findings from the other types of gender dysphoria to this type. That is, in the absence of evidence, researchers cannot assume that the pattern found in childhood-onset or adult-onset gender dysphoria also applies to adolescent-onset gender dysphoria. The multiple differences already observed between these groups argue against predicting that features present in one type would generalize to be present in all types of gender dysphoria.

2. Social Transition and Puberty Blockers with Adolescent Onset

75. There do not yet exist prospective outcomes studies either for social transition or for

⁷⁶ Littman, 2018.

⁷⁷ Littman, 2018.

⁷⁸ Kaltiala-Heino, *et al.*, 2015; Littman, 2018; Warrier, *et al.*, 2020.

⁷⁹ Boivin, *et al.*, 2020.

⁸⁰ Biggs, 2020; Littman, 2018.

medical interventions for people whose gender dysphoria began in adolescence. That is, instead of taking a sample of individuals and following them forward over time (thus permitting researchers to account for people dropping out of the study, people misremembering the order of events, etc.), all studies have thus far been *retrospective*. It is not possible for such studies to identify what factors caused what outcomes. No study has yet been organized in such a way as to allow for an analysis of the adolescent-onset group, as distinct from childhood-onset or adult-onset cases. Many of the newer clinics (not the original clinics which systematically tracked and reported on their cases' results) fail to distinguish between people who had childhood-onset gender dysphoria and have aged into adolescence versus people whose onset was not until adolescence. (Analogously, there are reports failing to distinguish people who had adolescent-onset gender dysphoria and aged into adulthood from adult-onset gender dysphoria.) Studies selecting groups according to their current age instead of their ages of onset produces confounded results, representing unclear mixes according to how many of each type of case wound up in the final sample.

3. Mental Illness in Adolescent-Onset Gender Dysphoria

76. In 2019, a Special Section appeared in the *Archives of Sexual Behavior* titled, “Clinical Approaches to Adolescents with Gender Dysphoria.” It included this brief yet thorough summary of rates of mental health issues among adolescents expressing gender dysphoria, by Dr. Aron Janssen of the Department of Child and Adolescent Psychiatry of New York University:⁸¹ The literature varies in the range of percentages of adolescents with co-occurring disorders. The range for depressive symptoms ranges was 6–42%,⁸² with suicide attempts ranging 10 to 45%.⁸³ Self-injurious thoughts and behaviors range 14–39%.⁸⁴ Anxiety disorders and disruptive behavior

⁸¹ Janssen, *et al.*, 2019.

⁸² Holt, *et al.*, 2016; Skagerberg, *et al.*, 2013; Wallien, *et al.*, 2007.

⁸³ Reisner, *et al.*, 2015.

⁸⁴ Holt, *et al.*, 2016; Skagerberg, *et al.*, 2013.

difficulties including Attention Deficit/Hyperactivity Disorder are also prevalent.⁸⁵ Gender dysphoria also overlaps with Autism Spectrum Disorder.⁸⁶

77. Of particular concern in the context of adolescent onset gender dysphoria is Borderline Personality Disorder (BPD; diagnostic criteria to follow). It is increasingly hypothesized that very many cases appearing to be adolescent-onset gender dysphoria actually represent cases of BPD.⁸⁷ That is, some people may be misinterpreting their experiencing of the broader “identity disturbance” of symptom Criterion 3 to represent a gender identity issue specifically. Like adolescent-onset gender dysphoria, BPD begins to manifest in adolescence, is three times more common in biological females than males, and occurs in 2–3% of the population, rather than 1-in-5,000 people. (Thus, if even only a portion of people with BPD experienced an identity disturbance that focused on gender identity and were mistaken for transgender, they could easily overwhelm the number of genuine cases of gender dysphoria.)

78. DSM-5-TR Diagnostic Criteria for Borderline Personality Disorder:

A pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

1. Frantic efforts to avoid real or imagined abandonment. (Note: Do not include suicidal or self-mutilating behaviour covered in Criterion 5.)
2. A pattern of unstable and intense interpersonal relationship characterized by alternating between extremes of idealization and devaluation.
3. *Identity disturbance: markedly and persistently unstable self-image or sense of self.*
4. Impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge eating). (Note: Do not include suicidal or self-mutilating behavior covered in Criterion 5.)
5. *Recurrent suicidal behaviour, gestures, or threats, or self-mutilating behavior.*
6. Affective instability due to a marked reactivity of mood (e.g., intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days).

⁸⁵ de Vries, *et al.*, 2011; Mustanski, *et al.*, 2010; Wallien, *et al.*, 2007.

⁸⁶ de Vries, *et al.*, 2010; Jacobs, *et al.*, 2014; Janssen, *et al.*, 2016; May, *et al.*, 2016; Strang, *et al.*, 2014, 2016.

⁸⁷ E.g., Anzani, *et al.*, 2020; Zucker, 2019.

7. Chronic feelings of emptiness.
8. Inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights).
9. Transient, stress-related paranoid ideation or severe dissociative symptoms.
(Italics added.)

79. Mistaking cases of BPD for cases of Gender Dysphoria may prevent such youth from receiving the correct mental health services for their condition, and a primary cause for concern is symptom Criterion 5: Recurrent suicidality. (The research on suicide and suicidality are detailed in their own section herein.) Regarding the provision of mental health care, the distinction between these conditions is crucial: A person with BPD going undiagnosed will not receive the appropriate treatments (the currently most effective of which is Dialectical Behavior Therapy). A person with a cross-gender identity would be expected to feel relief from medical transition, but someone with BPD would not: The problem was not about *gender* identity, but about having an *unstable* identity. Moreover, after a failure of medical transition to provide relief, one would predict for these people increased levels of hopelessness and increased risk of suicidality.

80. Regarding research, there have now been several attempts to document rates of suicidality among gender dysphoric adolescents. The scientific concern presented by BPD is that it poses a potential confound: Samples of gender dysphoric adolescents could appear to have elevated rates of suicidality, not because of the gender dysphoria (or transphobia in society), but because of the number of people with BPD in the sample.

E. Suicide and Suicidality

81. Social media increasingly circulate demands for transition accompanied by hyperbolic warnings of suicide should there be delay or obstacle. Claims accompany admissions that “I’d rather have a trans daughter than a dead son,” and such threats are treated as the justification for referring to affirming gender transitions as ‘life-saving’ or ‘medically necessary’. Such claims

convey only grossly misleading misrepresentations of the research literature, however, deploying terms for their shock value rather than accuracy, and exploiting common public misperceptions about suicide. Indeed, suicide prevention research and public health campaigns repeatedly warn against circulating such exaggerations, due to the risk of copy-cat behavior they encourage.⁸⁸

82. Despite that the media treat them as near synonyms, suicide and suicidality are distinct phenomena. They represent different behaviors with different motivations, with different mental health issues, and with different clinical needs. *Suicide* refers to completed suicides and the sincere intent to die. It is substantially associated with impulsivity, using more lethal means, and being a biological male.⁸⁹ *Suicidality* refers to parasuicidal behaviors, including suicidal ideation, threats, and gestures. These typically represent cries for help rather than an intent to die and are more common among biological females. Suicidal threats can indicate any of many problems or represent emotional blackmail, as typified by “If you leave me, I will kill myself.” Professing suicidality is also used for attention-seeking or for the support or sympathy it evokes from others, denoting distress much more frequently than an intent to die.

83. Notwithstanding public misconceptions about the frequency of suicide and related behaviors, the highest rates of suicide are among middle-aged and elderly men in high income countries.⁹⁰ Biological males are at three times greater risk of death by suicide than are biological females, whereas suicidal ideation, plans, and attempts are three times more common among biological females.⁹¹ In contrast with completed suicides, the frequency of suicidal ideation, plans, and attempts is highest during adolescence and young adulthood, with reported ideation rates

⁸⁸ Gould & Lake, 2013.

⁸⁹ Freeman, *et al.*, 2017.

⁹⁰ Turecki & Brent, 2016

⁹¹ Klonsky et al., 2016; Turecki & Brent, 2016

spanning 12.1–33%.⁹² Relative to other countries, Americans report elevated rates of each of suicidal ideation (15.6%), plans (5.4%), and attempts (5.0%).⁹³ Suicide attempts occur up to 30 times more frequently than completed suicides.⁹⁴ The rate of completed suicides in the U.S. population is 14.5 per 100,000 people.⁹⁵ The widely discrepant numbers representing completed suicides versus transient suicidal ideation has left those statistics open to substantial abuse in the media and social media. Despite public media guidelines urging “Avoid dramatic headlines and strong terms such as ‘suicide epidemic’,”⁹⁶ that is exactly what mainstream outlets have done.⁹⁷

84. There is substantial research associating sexual orientation with suicidality, but much less so with completed suicide.⁹⁸ More specifically, there is some evidence suggesting gay adult men are more likely to die by suicide than are heterosexual men, but there is less evidence of an analogous pattern among lesbian women. Regarding suicidality, surveys of self-identified LGB Americans repeatedly report rates of suicidal ideation and suicide attempts 2–7 times higher than their heterosexual counterparts. Because of this association of suicidality with sexual orientation, one must apply caution in interpreting findings allegedly about gender identity: Because of the overlap between people who self-identify as non-heterosexual and as non-cis-gendered, correlations detected between suicidality and gender dysphoria may instead reflect (be confounded by) homosexuality. Indeed, other authors have made explicit their surprise that so many studies, purportedly of gender identity, entirely omitted measurement or consideration of sexual orientation, creating the situation where features that seem to be associated with gender identity

⁹² Borges et al., 2010; Nock et al., 2008

⁹³ Klonsky, et al., 2016.

⁹⁴ Bachman, 2018.

⁹⁵ World Health Organization, 2022.

⁹⁶ Samaritans, 2020.

⁹⁷ E.g., MSNBC, 2015, *Trans youth and suicide: An epidemic*.

⁹⁸ Haas, *et al.*, 2011.

instead reflect the sexual orientation of the members of the sample.⁹⁹

85. Among post-transition transsexuals, completed suicide rates are elevated, but are nonetheless rare.¹⁰⁰ Regarding suicidality, there have been three recent, systematic reviews of the research literature.¹⁰¹ All three included specific methods to minimize any potential effects of cherry-picking findings from within the research literature. Compiling the results of 108 articles reported from 64 research projects, Adams and Vincent (2019) found an overall average rate of 46.55% for suicidal ideation (ranging 18.18%–95.5%) and an overall average rate of 27.19% for suicidal attempts (ranging 8.57%–52.4%). These findings confirmed those reported by McNeil, *et al.* (2017), whose review of 30 articles revealed a range of 37%–83% for suicidal ideation and 9.8%–43% for suicidal attempts. Thus, on the one hand, these ranges are greater than those reported for the mainstream population—They instead approximate the rates reported among sexual orientation minorities. On the other hand, with measures so lacking in reliability that they produce every result from ‘rare’ to ‘almost everyone’, it is unclear which, if any of them, represents a valid conclusion.

86. McNeil *et al.* (2017) observed also the research to reveal rates of suicidal ideation and suicidal attempts to be related—not to transition status—but to the social support received: The studies reviewed showed support to decrease suicidality, but transition not to. Indeed, in some situations, social support was associated with *increased* suicide attempts, suggesting the reported suicidality may represent attempts to evoke more support.¹⁰²

87. Marshall *et al.* (2016) identified and examined 31 studies, again finding rates of suicidal ideation and suicide attempts to be elevated, particularly among biological females, indicating that

⁹⁹ McNeil, *et al.* (2017)

¹⁰⁰ Wiepjes, *et al.*, 2020.

¹⁰¹ Adams & Vincent, 2019; Marshall, *et al.*, 2016; McNeil, *et al.* (2017).

¹⁰² Bauer, *et al.*, 2015; Canetto, *et al.*, 2021.

suicidality patterns correspond to biological sex rather than self-identified gender.¹⁰³

88. Despite that mental health issues, including suicidality, are repeatedly required by clinical standards of care to be resolved before transition, threats of suicide are instead oftentimes used as the very justification for labelling transition a ‘medical necessity’. However plausible it might seem that failing to affirm transition causes suicidality, the epidemiological evidence indicates that hypothesis to be incorrect: Suicide rates remains elevated even after complete transition, as shown by a comprehensive review of 17 studies of suicidality in gender dysphoria.¹⁰⁴

89. The scientific study of suicide is inextricably linked to that of mental illness, and Borderline Personality Disorder is repeatedly documented to be greatly elevated among sexual minorities.¹⁰⁵

F. Conversion Therapy

90. Activists and social media increasingly, but erroneously, apply the term “conversion therapy” moving farther and farther from what the research has reported. “Conversion therapy” (or “reparative therapy” and other names) was the attempt to change a person’s sexual orientation; however, with the public more frequently accustomed to “LGB” being expanded to “LGBTQ+”, the claims relevant only to sexual orientation are being misapplied to gender identity. The research has repeatedly demonstrated that once one explicitly acknowledges being gay or lesbian, one is only very rarely mistaken. That is entirely unlike gender identity, wherein the great majority of children who declare cross-gender identity cease to do so by puberty, as already shown unanimously by all follow-up studies. As the field grows increasingly polarized, any therapy failing to provide affirmation-on-demand is mislabeled “conversion therapy.”¹⁰⁶ Indeed, even

¹⁰³ Marshall, et al., 2016.

¹⁰⁴ McNeil, et al., 2017.

¹⁰⁵ Reuter, et al., 2016; Rodriguez-Seiljas, et al., 2021; Zanarni, et al., 2021.

¹⁰⁶ D’Angelo, et al., 2021.

actions of non-therapists, unrelated to any therapy, have been (mis-)labelled conversion therapy, including the prohibition of biological males competing on female teams.¹⁰⁷

G. Affirmation-on-Demand vs Gate-Keeping

91. Colloquially, affirmation refers broadly to any actions that treat the person as belonging to a new gender. In different contexts, that could apply to social actions (use of a new name and pronouns), legal actions (changes to birth certificates), or medical actions (hormonal and surgical interventions). That is, social transition, legal transition, and medical transition (and subparts thereof) need not, and rarely do, occur at the same time. In practice, there are cases in which a child has socially only partially transitioned, such as presenting as one gender at home and another at school or presenting as one gender with one custodial parent and another gender with the other parent.

92. Referring to “affirmation” as a treatment approach is ambiguous: Although often used in public discourse to take advantage of the positive connotations of the term, it obfuscates what exactly is being affirmed. This often leads to confusion, such as quoting a study of the benefits and risks of social affirmation in a discussion of medical affirmation, where the appearance of the isolated word “affirmation” refers to entirely different actions.

93. It is also an error to divide treatment approaches into affirmative versus non-affirmative. As noted already, the widely adopted Dutch Approach (and the guidelines of the multiple professional associations based on it) cannot be said to be either: It is a staged set of interventions, wherein social transition (and puberty blocking) may not begin until age 12 and cross-sex hormonal and other medical interventions, later.

94. Formal clinical approaches to helping children expressing gender dysphoria employ a

¹⁰⁷ Turban, 2021, March 16.

gate-keeper model, with decision trees to help clinicians decide when and if the potential benefits of affirmation of the new gender would outweigh the potential risks of doing so. Because the gate-keepers and decision-trees generally include the possibility of affirmation in at least some cases, it is misleading to refer to any one approach as “the affirmation approach.” The most extreme decision-tree would be accurately called *affirmation-on-demand*, involving little or no opportunity for children to explore at all whether the distress they feel is due to some other, less obvious, factor, whereas more moderate gate-keeping would endorse transition only in select situations, when the likelihood of regretting transition is minimized.

95. Many outcomes studies have been published examining the results of gate-keeper models, but no such studies have been published regarding *affirmation-on-demand* with children. Although there have been claims that *affirmation-on-demand* causes mental health or other improvement, these have been the result only of “retrospective” rather than “prospective” studies. That is, such studies did not take a sample of children and follow them up over time, to see how many dropped out altogether, how many transitioned successfully, and how many transitioned and regretted it or detransitioned. Rather, such studies took a sample of successfully transitioned adults and asked them retrospective questions about their past. In such studies, it is not possible to know how many other people dropped out or regretted transition, and it is not possible to infer causality from any of the correlations detected, despite authors implying and inferring causality.

H. Assessing the “Minority Stress Hypothesis”

96. The elevated levels of mental health problems among lesbian, gay, and bisexual populations is a well-documented phenomenon, and the idea that it is caused by living within a socially hostile environment is called the *Minority Stress Hypothesis*.¹⁰⁸ The association is not

¹⁰⁸ Meyer, 2003.

entirely straight-forward, however. For example, although lesbian, gay, and bisexual populations are more vulnerable to suicide ideation overall, the evidence specifically on adult lesbian and bisexual women is unclear. Meyer did not include transgender populations in originating the hypothesis, and it remains a legitimate question to what extent and in what ways it might apply to gender identity.

97. Minority stress is associated, in large part, with being a visible minority. There is little evidence that transgender populations show the patterns suggested by the hypothesis. For example, the minority stress hypothesis would predict differences according to how visibly a person is discernable as a member of the minority, which often changes greatly upon transition. Biological males who are very effeminate stand out throughout childhood, but in some cases can successfully blend in as adult females; whereas the adult-onset transitioners blend in very much as heterosexual cis-gendered males during their youth and begin visibly to stand out in adulthood, only for the first time.

98. Also suggesting minority stress cannot be the full story is that the mental health symptoms associated with minority stress do not entirely correspond with those associated with gender dysphoria. The primary symptoms associated with minority stress are depressive symptoms, substance use, and suicidal ideation.¹⁰⁹ The symptoms associated with gender dysphoria indeed include depressive symptoms and suicidal ideation, but also include anxiety symptoms, Autism Spectrum Disorders, and personality disorders.

99. A primary criterion for readiness for transition used by the clinics demonstrating successful transition is the absence or resolution of other mental health concerns, such as suicidality. In the popular media, however, indications of mental health concerns are instead often

¹⁰⁹ Meyer, 2003.

dismissed as an expectable result caused by Sexual Minority Stress (SMS). It is generally implied that such symptoms will resolve upon transition and integration into an affirming environment.

V. Clinical Guidelines

100. Several sets of recommendations have been offered regarding the clinical treatment of people with gender dysphoria. The best scientifically validated among them is the Dutch Protocol. Many clinics, however, instead employ Endocrine Society or WPATH guidelines, which leave nearly all decisions to the discretion of the physician rather than to establish any boundaries at all. These sets of guidelines are summarized in table form on the Executive Summary at the beginning of the present report. There do not exist any research studies supporting or justifying the lowering of standards from the Dutch Protocol to the Endocrine Society/WPATH levels. Although the cohort studies with the guidelines cannot distinguish benefits of psychotherapy from medical intervention, the studies showing improvement were those using the Dutch Protocol. None of the studies employing Endocrine Society/WPATH methods suggested substantial improvement.

A. The Dutch Protocol (aka Dutch Approach)

101. The purpose of the protocol was to compromise the conflicting needs among: clients' initial wishes upon assessment, the long-established and repeated observation that those wishes will change in the majority of (but not in all) childhood cases, and that cosmetic aspects of medical transition are perceived to be better when they occur earlier rather than later.

102. The Dutch Protocol was developed over many years by the Netherlands' child gender identity clinic, incorporating the accumulating findings from their own research as well as those reported by other clinics working with gender dysphoric children. They summarized and explicated the approach in their peer-reviewed report, *Clinical management of gender dysphoria*

*in children and adolescents: The Dutch Approach.*¹¹⁰ The components of the Dutch Approach are:

- no social transition at all considered before age 12 (watchful waiting period),
- no puberty blockers considered before age 12,
- cross-sex hormones considered only after age 16, and
- resolution of mental health issues before any transition.

103. For youth under age 12, “the general recommendation is watchful waiting and carefully observing how gender dysphoria develops in the first stages of puberty.”¹¹¹

104. The age cut-offs of the Dutch Approach were not based on any research demonstrating their superiority over other potential age cut-off’s. Rather, they were chosen to correspond to the ages of consent to medical procedures under Dutch law. Nevertheless, whatever the original rationale, the data from this clinic simply contain no information about the safety or efficacy of employing these measures at younger ages.

105. The authors of the Dutch Approach repeatedly and consistently emphasize the need for extensive mental health assessment, including clinical interviews, formal psychological testing with validated psychometric instruments, and multiple sessions with the child and the child’s parents.

106. Within the Dutch approach, there is no social transition before age twelve. That is, social affirmation of the new gender may not begin until age 12—as desistance is less likely to occur past that age. “Watchful Waiting” refers to a child’s developmental period up to that age. Watchful waiting does not mean do nothing but passively observe the child. Rather, such children and families typically present with substantial distress involving both gender and non-gender issues, and it is during the watchful waiting period that a child (and other family members as appropriate) would undergo therapy, resolving other issues which may be exacerbating

¹¹⁰ de Vries & Cohen-Kettenis, 2012

¹¹¹ de Vries & Cohen-Kettenis, 2012, at 301.

psychological stress or dysphoria. As noted by the Dutch clinic, “[T]he adolescents in this study received extensive family or other social support . . . [and they] were all regularly seen by one of the clinic’s psychologists or psychiatrists.”¹¹² One is actively treating the person, while carefully “watching” the dysphoria.

B. World Professional Association for Transgender Health (WPATH)

107. The WPATH Standards (version seven) acknowledge the high rates of desistance among prepubescent children:

[I]n follow-up studies of prepubertal children (mainly boys) who were referred to clinics for assessment of gender dysphoria, the dysphoria persisted into adulthood for only 6–23% of children (Cohen-Kettenis, 2001; Zucker & Bradley, 1995). Boys in these studies were more likely to identify as gay in adulthood than as transgender (Green, 1987; Money & Russo, 1979; Zucker & Bradley, 1995; Zuger, 1984). Newer studies, also including girls, showed a 12–27% persistence rate of gender dysphoria into adulthood (Drummond, Bradley, Peterson-Badali, & Zucker, 2008; Wallien & Cohen-Kettenis, 2008).¹¹³

That is, “In most children, gender dysphoria will disappear before, or early in, puberty.”¹¹⁴

108. Although WPATH does not refer to puberty blocking medications as “experimental,” the document indicates the non-routine, or at least inconsistent availability of the treatment:

Among adolescents who are referred to gender identity clinics, the number considered eligible for early medical treatment—starting with GnRH analogues to suppress puberty in the first Tanner stages—differs among countries and centers. Not all clinics offer puberty suppression. If such treatment is offered, the pubertal stage at which adolescents are allowed to start varies from Tanner stage 2 to stage 4 (Delemarre-van de Waal & Cohen-Kettenis, 2006; Zucker et al., [2012]).¹¹⁵

109. WPATH neither endorses nor proscribes social transitions before puberty, instead recognizing the diversity among families’ decisions:

Social transitions in early childhood do occur within some families with early success. This is a controversial issue, and divergent views are held by health

¹¹² de Vries, *et al.*, 2011, at 2280-2281.

¹¹³ Coleman, *et al.*, 2012, at 172.

¹¹⁴ Coleman, *et al.*, 2012, at 173.

¹¹⁵ Coleman, *et al.*, 2012, at 173.

professionals. The current evidence base is insufficient to predict the long-term outcomes of completing a gender role transition during early childhood.¹¹⁶

It does caution, however, “Relevant in this respect are the previously described relatively low persistence rates of childhood gender dysphoria.”¹¹⁷

110. An eighth version of the WPATH Standards of Care have been circulated for public comment¹¹⁸ and is expected to be released in 2022. No cohort studies nor any validation studies have been conducted to assess its contents. Regarding transition among adolescents, version eight recommends these age and developmental cut-off’s:

F. The adolescent has reached Tanner 2 stage of puberty for pubertal suppression.

G. The adolescent is the following age for each treatment:

- 14 years and above for hormone treatment (estrogens or androgens), unless there are significant, compelling reasons to take an individualized approach, considering the factors unique to the adolescent treatment frame.
- 15 years and above for chest masculinization; unless there are significant, compelling reasons to take an individualized approach, considering the factors unique to the adolescent treatment frame.
- 16 years and above for breast augmentation, facial surgery (including rhinoplasty, tracheal shave, and genioplasty) as part of gender affirming treatment; unless there are significant, compelling reasons to take an individualized approach, considering the factors unique to the adolescent treatment frame.
- 17 and above for metoidioplasty, orchidectomy, vaginoplasty, and hysterectomy and fronto-orbital remodeling as part of gender affirming treatment unless there are significant, compelling reasons to take an individualized approach, considering the factors unique to the adolescent treatment frame.
- 18 years or above for phalloplasty, unless there are significant, compelling reasons to take an individualized approach, considering the factors unique to the adolescent treatment frame.¹¹⁹

111. Version eight cites most of the cohort studies of adolescent minors undergoing medical transition. It does not, however, compile, assess, or systematically review their results to identify any patterns across them. Rather, Version eight concludes only that the “design makes interpreting

¹¹⁶ Coleman, *et al.*, 2012, at 176.

¹¹⁷ Coleman, *et al.*, 2012, at 176 (quoting Drummond, *et al.*, 2008; Wallien & Cohen-Kettenis, 2008).

¹¹⁸ Coleman *et al.*, 2021.

¹¹⁹ Coleman, *et al.*, 2021, at 60.

outcomes more challenging”.¹²⁰ The document notes “the data consistently demonstrate improved or stable psychological functioning, body image, and/or treatment satisfaction”¹²¹ and repeatedly emphasizes the inclusion of mental health treatment, but never acknowledges the confound that psychotherapy poses to the demonstrated improvements.

C. Endocrine Society (ES)

112. The 150,000-member Endocrine Society appointed a nine-member task force, plus a methodologist and a medical writer, who commissioned two systematic reviews of the research literature and, in 2017, published an update of their 2009 recommendations, based on the best available evidence identified. The guideline was co-sponsored by the American Association of Clinical Endocrinologists, American Society of Andrology, European Society for Paediatric Endocrinology, European Society of Endocrinology, Pediatric Endocrine Society (PES), and the World Professional Association for Transgender Health (WPATH).

113. The document acknowledged the frequency of desistance among gender dysphoric children:

Prospective follow-up studies show that childhood GD/gender incongruence does not invariably persist into adolescence and adulthood (so-called “desisters”). Combining all outcome studies to date, the GD/gender incongruence of a minority of prepubertal children appears to persist in adolescence. . . . In adolescence, a significant number of these desisters identify as homosexual or bisexual.¹²²

114. The statement similarly acknowledges inability to predict desistance or persistence, “With current knowledge, we cannot predict the psychosexual outcome for any specific child.”¹²³

115. Although outside their area of professional expertise, mental health issues were also addressed by the Endocrine Society, repeating the need to handle such issues before engaging in

¹²⁰ Coleman, *et al.*, 2021, at 56.

¹²¹ Coleman, *et al.*, 2021, at 56.

¹²² Hembree, *et al.*, 2017, at 3876.

¹²³ Hembree, *et al.*, 2017, at 3876.

transition, “In cases in which severe psychopathology, circumstances, or both seriously interfere with the diagnostic work or make satisfactory treatment unlikely, clinicians should assist the adolescent in managing these other issues.”¹²⁴ This ordering—to address mental health issues before embarking on transition—avoids relying on the unproven belief that transition will solve such issues.

116. The Endocrine Society did not endorse any affirmation-only approach. The guidelines were neutral with regard to social transitions before puberty, instead advising that such decisions be made only under clinical supervision: “We advise that decisions regarding the social transition of prepubertal youth are made with the assistance of a mental health professional or similarly experienced professional.”¹²⁵

117. The Endocrine Society guidelines make explicit that, after gathering information from adolescent clients seeking medical interventions and their parents, the clinician “provides correct information to prevent unrealistically high expectations [and] assesses whether medical interventions may result in unfavorable psychological and social outcomes.”¹²⁶

D. American Academy of Pediatrics (AAP)

118. The policy of the American Academy of Pediatrics (AAP) is unique among the major medical associations in being the only one to endorse an affirmation-on-demand policy, including social transition before puberty without any watchful waiting period. Although changes in recommendations can obviously be appropriate in response to new research evidence, the AAP provided none. Rather, the research studies AAP cited in support of its policy simply did not say what AAP claimed they did. In fact, the references that AAP cited as the basis of their policy

¹²⁴ Hembree, *et al.*, 2017, at 3877.

¹²⁵ Hembree, *et al.*, 2017, at 3872.

¹²⁶ Hembree, *et al.*, 2017, at 3877.

instead outright contradicted that policy, repeatedly endorsing watchful waiting.¹²⁷ Moreover, of all the outcomes research published, the AAP policy cited *one*, and that without mentioning the outcome data it contained.¹²⁸

119. Immediately following the publication of the AAP policy, I conducted a point-by-point fact-check of the claims it asserted and the references it cited in support. I submitted that to the *Journal of Sex & Marital Therapy*, a well-known research journal of my field, where it underwent blind peer review and was published. I append that article as part of this report. *See* Appendix 3. A great deal of published attention ensued; however, the AAP has yet to respond to the errors I demonstrated its policy contained. Writing for *The Economist* about the use of puberty blockers, Helen Joyce asked AAP directly, “Has the AAP responded to Dr Cantor? If not, have you any response now?” The AAP Media Relations Manager, Lisa Black, responded: “We do not have anyone available for comment.”

VI. International Health Care Consensus

120. As detailed in the following, Westernized countries other than the U.S. have followed a remarkably similar pattern of policy development: The health care systems of these countries responded to the demands of transgender advocates by facilitating transition-on-demand, which was followed by the identification of the failure of those efforts to improve the mental health of an exponentially increasing number of youth, and, currently, by the reversal of initial policy, now endorsing psychotherapy as the treatment of choice, with medical interventions representing a method of last resort, if permitted at all. These range from medical advisories to outright bans on the medical transition of minors.

¹²⁷ Cantor, 2020.

¹²⁸ Cantor, 2020, at 1.

A. United Kingdom

121. The National Health Service (NHS) of the United Kingdom centralizes gender counselling and transitioning services in a single clinic, the Gender Identity Development Service (GIDS) of the Tavistock and Portman NHS Foundation Trust. Between 2008 and 2018, the number of referrals to the clinic had increased by a factor of 40, leading to a government inquiry into the causes¹²⁹. The GIDS was repeatedly accused of over-diagnosing and permitting transition in cases despite indicators against patient transition, including by 35 members of the GIDS staff, who resigned by 2019¹³⁰.

122. The NHS appointed Dr. Hilary Cass, former President of the Royal College of Paediatrics and Child Health, to conduct an independent review¹³¹. That review included a systematic consolidation of all the research evidence, following established procedures for preventing the “cherry-picking” or selective citation favouring or down-playing any one conclusion¹³². The review’s results were unambiguous: “The critical outcomes for decision making are the impact on gender dysphoria, mental health and quality of life. The quality of evidence for these outcomes was assessed as very low”¹³³, again using established procedures for assessing clinical research evidence (called GRADE). The review also assessed as “very low” the quality of evidence regarding “body image, psychosocial impact, engagement with health care services, impact on extent of an satisfaction with surgery and stopping treatment”¹³⁴. The report concluded that of the existing research, “The studies included in this evidence review are all small, uncontrolled observational studies, which are subject to bias and confounding....They suggest

¹²⁹ Marsh, 2020; Rayner, 2018.

¹³⁰ BBC, 2021; Donnelly, 2019.

¹³¹ National Health Service, 2020, Sept. 22.

¹³² U.K. National Health Service (NHS), 2021.

¹³³ U.K. National Health Service (NHS), 2021, at 4.

¹³⁴ U.K. National Health Service (NHS), 2021, at 5.

little change with GnRH analogues [puberty blockers] from baseline to follow-up”¹³⁵.

B. Finland

123. In Finland, the assessments of mental health and preparedness of minors for transition services are centralized by law into two research clinics, Helsinki University Central Hospital and Tampere University Hospital. The eligibility of minors began in 2011. In 2019, Finnish researchers published an analysis of the outcomes of adolescents diagnosed with transsexualism and receiving cross-sex hormone treatment¹³⁶. That study showed that despite the purpose of medical transition to improve mental health: “Medical gender reassignment is not enough to improve functioning and relieve psychiatric comorbidities among adolescents with gender dysphoria. Appropriate interventions are warranted for psychiatric comorbidities and problems in adolescent development”¹³⁷. The patients who were functioning well after transition were those who were already functioning well before transition, and those who were functioning poorly, continued to function poorly after transition.

124. Consistent with the evidence, Finland’s health care service (Council for Choices in Health Care in Finland—COHERE) thus ended the surgical transition of minors, ruling in 2020 that “Surgical treatments are not part of the treatment methods for dysphoria caused by gender-related conflicts in minors” (COHERE, 2020). The review of the research concluded that “[N]o conclusions can be drawn on the stability of gender identity during the period of disorder caused by a psychiatric illness with symptoms that hamper development.” COHERE also greatly restricted access to puberty-blocking and other hormonal treatments, indicating they “may be considered if the need for it continues *after* the other psychiatric symptoms have ceased and adolescent

¹³⁵ U.K. National Health Service (NHS), 2021, at 13.

¹³⁶ Kaltiala et al., 2020.

¹³⁷ Kaltiala et al., 2020, at 213.

development is progressing normally”¹³⁸. The council was explicit in noting the lack of research needed for decision-making, “There is also a need for more information on the *disadvantages* of procedures and on people who regret them”¹³⁹.

C. Sweden

125. Sweden’s national health care policy regarding trans issues has developed quite similarly to that of the UK. Already in place 20 years ago, Swedish health care policy permitted otherwise eligible minors to receive puberty-blockers beginning at age 14 and cross-sex hormones at age 16.) At that time, only small numbers of minors sought medical transition services. An explosion of referrals ensued in 2013–2014. Sweden’s Board of Health and Welfare reported that, in 2018, the number of diagnoses of gender dysphoria was 15 times higher than 2008 among girls ages 13–17.

126. Sweden has long been very accepting with regard to sexual and gender diversity. In 2018, a law was proposed to lower the age of eligibility for surgical care from age 18 to 15, remove the requirement for parental consent, and lower legal change of gender to age 12. A series of cases of regret and suicide were reported in the Swedish media, leading to questions of mental health professionals failing to consider. In 2019, the Swedish Agency for Health Technology Assessment and Assessment of Social Services (SBU) therefore conducted its own comprehensive review of the research¹⁴⁰. Like the UK, the Swedish investigation employed methods to ensure the encapsulation of the all the relevant evidence¹⁴¹.

127. The SBU report came to the same conclusions as the UK commission. From 2022 forward, the Swedish National Board or Health and Welfare therefore “recommends restraint when

¹³⁸ Council for Choices in Health Care in Finland, 2020; italics added.

¹³⁹ Council for Choices in Health Care in Finland, 2020; italics added.

¹⁴⁰ Orange, 2020, Feb 22.

¹⁴¹ Swedish Agency for Health Technology Assessment and Assessment of Social Services, 2019.

it comes to hormone treatment...Based on the results that have emerged, the National Board of Health and Welfare's overall conclusion is that the risks of anti-puberty and sex-confirming hormone treatment for those under 18 currently outweigh the possible benefits for the group as a whole"¹⁴². Neither puberty blockers nor cross-sex hormones would be provided under age 16, and patients ages 16–18 would receive such treatments only within research settings (clinical trials monitored by the appropriate Swedish research ethics board).

D. France

128. In 2022, the Académie Nationale de Médecine of France issued a strongly worded statement, citing the Swedish ban on hormone treatments. “[A] great medical caution must be taken in children and adolescents, given the vulnerability, particularly psychological, of this population and the many undesirable effects, and even serious complications, that some of the available therapies can cause...such as impact on growth, bone fragility, risk of sterility, emotional and intellectual consequences and, for girls, symptoms reminiscent of menopause”¹⁴³. For hormones, the Académie concluded “the greatest reserve is required in their use,” and for surgical treatments, “[T]heir irreversible nature must be emphasized.” The Académie did not outright ban medical interventions, but warned “the risk of over-diagnosis is real, as shown by the increasing number of transgender young adults wishing to “detransition”. Rather than medical interventions, it advised health care providers “to extend as much as possible the psychological support phase.” The Académie reviewed and emphasized the evidence indicating the very large and very sudden increase in youth requesting medical transition. It attributed the change, not to society now being more accepting of sexual diversity, but to social media, “underlining the addictive character of excessive consultation of social networks which is both harmful to the psychological development

¹⁴² Swedish National Board of Health and Welfare, 2022.

¹⁴³ Académie Nationale de Médecine, 2022, Feb. 25.

of young people and responsible, for a very important part, of the growing sense of gender incongruence.”

E. Australia

129. In Australia, from 2004 to 2017, court approval was required before starting hormone treatment. The end of that policy was followed by a jump to the opposite extreme: The subsequent Australian standards of care were explicit in indicating “decision making should be driven by the child or adolescent wherever possible; this applies to options regarding not only medical intervention but also social transition”,¹⁴⁴ emphasizing that “Social transition should be led by the child.”¹⁴⁵ Notably, these guidelines were based, not on the research literature, but on expert consensus.¹⁴⁶ In 2019, however, the Royal Australian and New Zealand College of Psychiatrists withdrew its support for those guidelines, issuing a position statement prioritizing psychotherapy. In an interview with Medscape, the president of the National Association of Practising Psychiatrists in Australia said that exploration of a patients reasons for identifying as transgender is essential, and “There may be other reasons for doing it and we need to look for those, identify them and treat them. This needs to be done before initiating hormones and changing the whole physical nature of the child.”¹⁴⁷

VII. U.S. Professional Associations

130. In stark contrast with the consensus of the international health bodies endorsing evidence-based medicine, some U.S. medical associations instead continue to endorse medical intervention for children. The value of such endorsement should not be either over or underestimated. The general public typically infers from such support that it followed from the

¹⁴⁴ Telfer, *et al.*, 2018, at 133.

¹⁴⁵ Telfer, *et al.*, 2018, at 134.

¹⁴⁶ Telfer, *et al.*, 2018, at 132.

¹⁴⁷ *Medscape*, 2021, Oct. 7.

association having conducted a scholarly review of the scientific evidence, ideally using standardized research methods to isolate biases and prevent cherry-picking that favors any specific results. Yet, whereas European public health services have engaged in exactly these comprehensive and transparent methods,¹⁴⁸ the American professional associations have not.

131. With the broad exception of the AAP, the professional associations' statements repeatedly noted instead that:

- Desistance of gender dysphoria occurs in the majority of prepubescent children.
- Mental health issues need to be assessed as potentially contributing factors and need to be addressed before transition.
- Puberty-blocking medication is an experimental, not a routine, treatment.
- Social transition is not generally recommended until after puberty.

Although some other associations have published broad statements of moral support for sexual minorities and against discrimination, they did not include any specific standards or guidelines regarding medical- or transition-related care.

A. Pediatric Endocrine Society and Endocrine Society (ES/PES)

132. In 2020, the 1500-member Pediatric Endocrine Society partnered with the Endocrine Society to create and endorse a brief, two-page position statement.¹⁴⁹ Although strongly worded, the document provided no specific guidelines, instead deferring to the Endocrine Society guidelines.¹⁵⁰

133. It is not clear to what extent this endorsement is meaningful, however. According to the PES, the Endocrine Society “recommendations include evidence that treatment of gender dysphoria/gender incongruence is medically necessary and should be covered by insurance.”¹⁵¹ However, the Endocrine Society makes neither statement. Although the two-page PES document

¹⁴⁸ U.K. National Health Service (NHS), 2021.

¹⁴⁹ PES, online; Pediatric Endocrine Society & Endocrine Society, Dec. 2020.

¹⁵⁰ Pediatric Endocrine Society & Endocrine Society, Dec. 2020, at 1; Hembree, *et al.*, 2017.

¹⁵¹ Pediatric Endocrine Society & Endocrine Society, Dec. 2020, at 1.

mentioned insurance coverage four times, the only mention of health insurance by the Endocrine Society was: “If GnRH analog treatment is not available (insurance denial, prohibitive cost, or other reasons), postpubertal, transgender female adolescents may be treated with an antiandrogen that directly suppresses androgen synthesis or action.”¹⁵² Despite the PES asserting it as “medically necessary,” the Endocrine Society stopped short of that. Its only use of that phrase was instead limiting: “We recommend that a patient pursue genital gender-affirming surgery only after the MHP and the clinician responsible for endocrine transition therapy both agree that surgery is medically necessary and would benefit the patient’s overall health and/or well-being.”¹⁵³

B. American Academy of Child & Adolescent Psychiatry (AACAP)

134. The 2012 statement of the American Academy of Child & Adolescent Psychiatry (AACAP) is not an affirmation-only policy. It notes:

135. Just as family rejection is associated with problems such as depression, suicidality, and substance abuse in gay youth, the proposed benefits of treatment to eliminate gender discordance in youth must be carefully weighed against such possible deleterious effects. . . . In general, it is desirable to help adolescents who may be experiencing gender distress and dysphoria to defer sex reassignment until adulthood, or at least until the wish to change sex is unequivocal, consistent, and made with appropriate consent.¹⁵⁴

136. The AACAP’s language repeats the description of the use of puberty blockers only as an exception: “For situations in which deferral of sex reassignment decisions until adulthood is *not clinically feasible*, one approach that has been described in case series is sex hormone suppression under endocrinological management with psychiatric consultation using

¹⁵² Hembree, *et al.* 2017, at 3883.

¹⁵³ Hembree, *et al.*, 2017 at 3872, 3894.

¹⁵⁴ Adelson & AACAP, 2012, at 969.

gonadotropin-releasing hormone analogues.”¹⁵⁵

137. The AACAP statement acknowledges the long-term outcomes literature for gender dysphoric children: “In follow-up studies of prepubertal boys with gender discordance—including many without any mental health treatment—the cross gender wishes usually fade over time and do not persist into adulthood,”¹⁵⁶ adding that “[c]linicians should be aware of current evidence on the natural course of gender discordance and associated psychopathology in children and adolescents in choosing the treatment goals and modality.”¹⁵⁷

138. The policy similarly includes a provision for resolving mental health issues: “Gender reassignment services are available in conjunction with mental health services focusing on exploration of gender identity, cross-sex treatment wishes, counseling during such treatment if any, and *treatment of associated mental health problems*.”¹⁵⁸ The document also includes minority stress issues and the need to deal with mental health aspects of minority status (*e.g.*, bullying).¹⁵⁹

139. Rather than endorse social transition for prepubertal children, the AACAP indicates: “There is similarly no data at present from controlled studies to guide clinical decisions regarding the risks and benefits of sending gender discordant children to school in their desired gender. Such decisions must be made based on clinical judgment, bearing in mind the potential risks and benefits of doing so.”¹⁶⁰

C. American College of Obstetricians & Gynecologists (ACOG)

140. The American College of Obstetricians & Gynecologists (ACOG) published a “Committee Opinion” expressing recommendations in 2017. The statement indicates it was

¹⁵⁵ Adelson & AACAP, 2012, at 969 (italics added).

¹⁵⁶ Adelson & AACAP, 2012, at 963.

¹⁵⁷ Adelson & AACAP, 2012, at 968.

¹⁵⁸ Adelson & AACAP, 2012, at 970 (italics added).

¹⁵⁹ Adelson & AACAP, 2012, at 969.

¹⁶⁰ Adelson & AACAP, 2012, at 969.

developed by the ACOG’s Committee on Adolescent Health Care, but does not indicate participation based on professional expertise or a systematic method of objectively assessing the existing research. It includes the disclaimer: “This document reflects emerging clinical and scientific advances as of the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed.”¹⁶¹

141. Prepubertal children do not typically have clinical contact with gynecologists, and the ACOG recommendations include that the client additionally have a primary health care provider.¹⁶²

142. The ACOG statement cites the statements made by other medical associations—European Society for Pediatric Endocrinology (ESPE), PES, and the Endocrine Society—and by WPATH.¹⁶³ It does not cite any professional association of *mental* health care providers, however. The ACOG recommendations repeat the previously mentioned eligibility/readiness criteria of having no mental illness that would hamper diagnosis and no medical contraindications to treatment. It notes: “*Before* any treatment is undertaken, the patient must display eligibility and readiness (Table 1), meaning that the adolescent has been evaluated by a mental health professional, has no contraindications to therapy, and displays an understanding of the risks involved.”¹⁶⁴

143. The “Eligibility and Readiness Criteria” also include, “Diagnosis established for gender dysphoria, transgender, transsexualism.”¹⁶⁵ This standard, requiring a formal diagnosis, forestalls affirmation-on-demand because self-declared self-identification is not sufficient for

¹⁶¹ ACOG, 2017, at 1.

¹⁶² ACOG, 2017, at 1.

¹⁶³ ACOG, 2017, at 1, 3.

¹⁶⁴ ACOG, 2017, at 1, 3 (citing the Endocrine Society guidelines) (*italics added*).

¹⁶⁵ ACOG, 2017, at 3 Table 1.

DSM diagnosis.

144. ACOG’s remaining recommendations pertain only to post-transition, medically oriented concerns. Pre-pubertal social transition is not mentioned in the document, and the outcomes studies of gender dysphoric (prepubescent) children are not cited.

D. American College of Physicians (ACP)

145. The American College of Physicians published a position paper broadly expressing support for the treatment of LGBT patients and their families, including nondiscrimination, antiharassment, and defining “family” by emotional rather than biological or legal relationships in visitation policies, and the inclusion of transgender health care services in public and private health benefit plans.¹⁶⁶

146. ACP did not provide guidelines or standards for child or adult gender transitions. The policy paper opposed attempting “reparative therapy;” however, the paper confabulated sexual orientation with gender identity in doing so. That is, on the one hand, ACP explicitly recognized that “[s]exual orientation and gender identity are inherently different.”¹⁶⁷ It based this statement on the fact that “the American Psychological Association conducted a literature review of 83 studies on the efficacy of efforts to change *sexual orientation*.”¹⁶⁸ The APA’s document, entitled “Report of the American Psychological Task Force on appropriate therapeutic responses to *sexual orientation*” does not include or reference research on gender identity.¹⁶⁹ Despite citing no research about transgenderism, the ACP nonetheless included in its statement: “Available research does not support the use of reparative therapy as an effective method in the treatment of LGBT

¹⁶⁶ Daniel & Butkus, 2015a, 2015b.

¹⁶⁷ Daniel & Butkus, 2015b, at 2.

¹⁶⁸ Daniel & Butkus, 2015b, at 8 (italics added).

¹⁶⁹ APA, 2009 (italics added).

persons.”¹⁷⁰ That is, the inclusion of “T” with “LGB” is based on something other than the existing evidence.

147. There is another statement,¹⁷¹ which was funded by ACP and published in the *Annals of Internal Medicine* under its “*In the Clinic*” feature, noting that “‘In the Clinic’ does not necessarily represent official ACP clinical policy.”¹⁷² The document discusses medical transition procedures for adults rather than for children, except to note that “[n]o medical intervention is indicated for prepubescent youth,”¹⁷³ that a “mental health provider can assist the child and family with identifying an appropriate time for a social transition,”¹⁷⁴ and that the “child should be assessed and managed for coexisting mood disorders during this period because risk for suicide is higher than in their cisgender peers.”¹⁷⁵

E. The ESPE-LWPES GnRH Analogs Consensus Conference Group

148. Included in the interest of completeness, there was also a collaborative report in 2009, between the European Society for Pediatric Endocrinology (ESPE) and the Lawson Wilkins Pediatric Endocrine Society (LWPES).¹⁷⁶ Thirty experts were convened, evenly divided between North American and European labs and evenly divided male/female, who comprehensively rated the research literature on gonadotropin-release hormone analogs in children.

149. The effort concluded that “[u]se of gonadotropin-releasing hormone analogs for conditions other than central precocious puberty requires additional investigation and cannot be suggested routinely.”¹⁷⁷ However, gender dysphoria was not explicitly mentioned as one of those

¹⁷⁰ Daniel & Butkus, 2015b, at 8 (*italics added*).

¹⁷¹ Safer & Tangpricha, 2019.

¹⁷² Safer & Tangpricha, 2019, at ITC1.

¹⁷³ Safer & Tangpricha, 2019, at ITC9.

¹⁷⁴ Safer & Tangpricha, 2019, at ITC9.

¹⁷⁵ Safer & Tangpricha, 2019, at ITC9.

¹⁷⁶ Carel et al., 2009.

¹⁷⁷ Carel et al. 2009, at 752.

other conditions. Such additional investigations have still not appeared in the research literature, and the need for them continues to be expressed by these same professional bodies.

REFERENCES

- Académie Nationale de Médecine. (2022, Feb. 25). Medicine and gender transidentity in children and adolescents. Retrieved from <https://www.academie-medecine.fr/la-medecine-face-a-la-transidentite-de-genre-chez-les-enfants-et-les-adolescents/?lang=en>
- Achille, C., Taggart, T., Eaton, N. R., Osipoff, J., Tafuri, K., Lane, A., & Wilson, T. A. (2020). Longitudinal impact of gender-affirming endocrine intervention on the mental health and well-being of transgender youths: Preliminary results. *International Journal of Pediatric Endocrinology*. doi: 10.1186/s13633-020-00078-2
- Adams, N. J., & Vincent, B. (2019). Suicidal thoughts and behaviors among transgender adults in relation to education, ethnicity, and income: A systematic review. *Transgender Health*, 4, 226–246.
- Adelson, S. L., & American Academy of Child and Adolescent Psychiatry (AACAP) Committee on Quality Issues. (2012). Practice parameter on gay, lesbian, or bisexual sexual orientation, gender nonconformity, and gender discordance in children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, 51, 957–974.
- Allen, L. R., Watson, L. B., Egan, A. M., & Moser, C. N. (2019). Well-being and suicidality among transgender youth after gender-affirming hormones. *Clinical Practice in Pediatric Psychology*, 7, 302-311.
- American College of Obstetricians and Gynecologists. (2017). Care for transgender Adolescents. Committee Opinion No. 685. Retrieved from www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2017/01/care-for-transgender-adolescents
- American Psychiatric Association. (2022). *Diagnostic and statistical manual for mental disorders, fifth edition, text revision (DSM-5-TR)*. Washington, DC: Author.
- American Psychological Association, Task Force on Appropriate Therapeutic Responses to Sexual Orientation. (2009). Report of the American Psychological Association Task Force on Appropriate Therapeutic Responses to Sexual Orientation. Retrieved from <http://www.apa.org/pi/lgbc/publications/therapeutic-resp.html>
- Anzani, A., De Panfilis, C., Scandurra, C., & Prunas, A. (2020). Personality disorders and personality profiles in a sample of transgender individuals requesting gender-affirming treatments. *International Journal of Environmental Research and Public Health*, 17, 1521. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7084367/>
- Audi, L., Ahmed, S. F., Krone, N., Cools, M., McElreavey, K., Holterhus, P. M., Greenfield, A., Bashamboo, A., Hiort, O., Wudy, S. A., & McGowan, R. (2018). Approaches to molecular genetic diagnosis in the management of differences/disorders of sex development (DSD): Position paper of EU COST Action BM 1303 ‘DSDnet’. *European Journal of Endocrinology*, 179, R197–R206.
- Bachmann, S. (2018). Epidemiology of suicide and the psychiatric perspective. *International Journal of Environmental Research and Public Health*, 15, 1425.
- Baldinger-Melich, P., Urquijo Castro, M. F., Seiger, R., Ruef, A., Dwyer, D. B., Kranz, G. S., Klöbl, M., Kambeitz, J., Kaufmann, U., Windischberger, C., Kasper, S., Falkai, P., Lanzenberger, R., & Koutsouleris, N. (2020). Sex matters: A multivariate pattern analysis of sex and gender-related neuroanatomical differences in cis- and transgender individuals using structural Magnetic Resonance Imaging. *Cerebral Cortex*, 30, 1345–1356.
- Bauer, G. R., Scheim, A. I., Pyne, J., Travers, R., & Hammond, R. (2015). Intervenable factors associated with suicide risk in transgender persons: A respondent driven sampling study in Ontario, Canada. *BMC Public Health*, 15, 525.

- Bazelon, E. (2022, June 15). The battle over gender therapy: More teenagers than ever are seeking transitions, but the medical community that treats them is deeply divided about why — and what to do to help them. *The New York Times*. Retrieved from <https://www.nytimes.com/2022/06/15/magazine/gender-therapy.html>
- BBC News. (2021, Sept. 5). NHS child gender identity clinic whistleblower wins tribunal. *British Broadcasting Company*. Retrieved from <https://www.bbc.com/news/uk-58453250>
- Biggs, M. (2019). A letter to the editor regarding the original article by Costa et al: Psychological support, puberty suppression, and psychosocial functioning in adolescents with gender dysphoria. *Journal of Sexual Medicine*, 16, 2043.
- Biggs, M. (2020). Gender dysphoria and psychological functioning in adolescents treated with GnRHα: Comparing Dutch and English prospective studies. *Archives of Sexual Behavior*, 49, 2231–2236.
- Blanchard, R. (1985). Typology of male-to-female transsexualism. *Archives of Sexual Behavior*, 14, 247–261.
- Blanchard, R. (1988). Nonhomosexual gender dysphoria. *The Journal of Sex Research*, 24, 188–193.
- Blanchard, R. (1989a). The classification and labeling of nonhomosexual gender dysphorias. *Archives of Sexual Behavior*, 18, 315–334.
- Blanchard, R. (1989b). The concept of autogynephilia and the typology of male gender dysphoria. *Journal of Nervous and Mental Disease*, 177, 616–623.
- Blanchard, R. (1990). Gender identity disorders in adult women. In R. Blanchard & B. W. Steiner (Eds.), *Clinical management of gender identity disorders in children and adults* (pp. 77–91). Washington, DC: American Psychiatric Press.
- Blanchard, R. (1991). Clinical observations and systematic studies of autogynephilia. *Journal of Sex and Marital Therapy*, 17, 235–251.
- Blanchard, R., Steiner, B. W., Clemmensen, L. H., & Dickey, R. (1989). Prediction of regrets in postoperative transsexuals. *Canadian Journal of Psychiatry*, 34, 43–45.
- Boivin, L., Notredame, C.-E., Jardri, R., & Medjkane, F. (2020). Supporting parents of transgender adolescents: Yes, but how? *Archives of Sexual Behavior*, 49, 81–83.
- Borges, G., Nock, M. K., Haro Abad, J. M., Hwang, I., Sampson, N. A., Alonso, J., Helena Andrade, L...Kessler, R. C. (2010) Twelve-month prevalence of and risk factors for suicide attempts in the World Health Organization World Mental Health Surveys. *Journal of Clinical Psychiatry*, 71, 1617–1628.
- Bränström, R., & Pachankis, J. E. (2019). Reduction in mental health treatment utilization among transgender individuals after gender-affirming surgeries: A total population study. *American Journal of Psychiatry*, 177, 727–734.
- Canetto, S. S., Antonelli, P., Ciccotti, A., Dettore, D., & Lamis, D. A. (2021). Suicidal as normal: A lesbian, gay, and bisexual youth script? *Crisis*, 42, 292–300.
- Cantor, J. M. (2011). New MRI studies support the Blanchard typology of male-to-female transsexualism [Letter to the Editor]. *Archives of Sexual Behavior*, 40, 863–864.
- Cantor, J. M. (2012). Reply to Italiano's (2012) comment on Cantor (2011) [Letter to the Editor]. *Archives of Sexual Behavior*, 41, 1081–1082.
- Cantor, J. M. (2020). Transgender and gender diverse children and adolescents: Fact-checking of AAP policy. *Journal of Sex & Marital Therapy*, 46, 307–313.
- Carel, J. C., Eugster, E. A., Rogol, A., Ghizzoni, L., Palmert, M. R.; ESPE-LWPES GnRH Analogs Consensus Conference Group, Antoniazzi, F., Berenbaum, S., Bourguignon, J.

- P., Chrousos, G. P., Coste, J., Deal, S., de Vries, L., Foster, C., Heger, S., Holland, J., Jahnukainen, K., Juul, A., Kaplowitz, P., Lahlou, N., Lee, M. M., Lee, P., Merke, D. P., Neely, E. K., Oostdijk, W., Phillip, M., Rosenfield, R. L., Shulman, D., Styne, D., Tauber, M., Wit, J. M. (2009). Consensus statement on the use of gonadotropin-releasing hormone analogs in children. *Pediatrics*, *123*, e752–e762.
- Carmichael, P., Butler, G., Masic, U., Cole, T. J., De Stavola, B. L., Davidson, S., Skageberg, E. M., Khadr, S., Viner, R. M. (2021). Short-term outcomes of pubertal suppression in a selected cohort of 12 to 15 year old young people with persistent gender dysphoria in the UK. *PLoS ONE*, *16*, e0243894.
- Cohen-Kettenis, P. T. (2001). Gender identity disorder in DSM? *Journal of the American Academy of Child & Adolescent Psychiatry*, *40*, 391–391.
- Cohen-Kettenis, P. T., Owen, A., Kaijser, V. G., Bradley, S. J., & Zucker, K. J. (2003). Demographic characteristics, social competence, and behavior problems in children with gender identity disorder: A cross-national, cross-clinic comparative analysis. *Journal of Abnormal Child Psychology*, *31*, 41–53.
- Cohen, J., Cohen, P., West, S. G. Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences (3rd ed.)*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Coleman, E., Bockting, W., Botzer, M., Cohen-Kettenis, P., DeCuypere, G., Feldman, J., Fraser, L., Green, J., Knudson, G., Meyer, W. J., Monstrey, S., Adler, R. K., Brown, G. R., Devor, A. H., Ehrbar, R., Ettner, R., Eyler, E., Garofalo, R., Karasic, D. H., Lev, A. I., Mayer, G., Meyer-Bahlburg, H., Hall, B. P., Pfaefflin, F., Rachlin, K., Robinson, B., Schechter, L. S., Tangpricha, V., van Trotsenburg, M., Vitale, A., Winter, S., Whittle, S., Wylie, K. R., & Zucker, K. (2012). Standards of care for the health of transsexual, transgender, and gender-nonconforming people, version 7. *International Journal of Transgenderism*, *13*, 165–232.
- Coleman, E., Radix, A., & Arcelus, J. (2021). *WPATH standards of care, version 8*. Minneapolis, MN: Author.
- Costa, R., Dunsford, M., Skagerberg, E., Holt V., Carmichael, P., & Colizzi, M. (2015). Psychological support, puberty suppression, and psychosocial functioning in adolescents with gender dysphoria. *Journal of Sexual Medicine*, *12*, 2206–2214.
- Council for Choices in Health Care in Finland (COHERE). (2020, June 16). Medical treatment methods for dysphoria associated with variations in gender identity in minors—Recommendation. [Translated] Retrieved from [https://palveluvalikoima.fi/documents/1237350/22895008/Summary_minors_en+\(1\).pdf/fa2054c5-8c35-8492-59d6-b3de1c00de49/Summary_minors_en+\(1\).pdf?t=1631773838474](https://palveluvalikoima.fi/documents/1237350/22895008/Summary_minors_en+(1).pdf/fa2054c5-8c35-8492-59d6-b3de1c00de49/Summary_minors_en+(1).pdf?t=1631773838474)
- D’Angelo, R., Syrulnik, E., Ayad, S., Marchiano, L., Kenny, D. T., & Clarke, P. (2021). One size does not fit all: In support of psychotherapy for gender dysphoria. *Archives of Sexual Behavior*, *50*, 7–16.
- Dahlen, S., Connolly, D., Arif, I., Hyder Junejo, M., Bewley, S., & Meads, C. (2021). *International clinical practice guidelines for gender minority/trans people: Systematic review and quality assessment*. *BMJ Open*, *11*, e048943.
- Daniel, H., & Butkus, R. (2015a). Lesbian, gay, bisexual, and transgender health disparities: Executive summary of a policy position paper from the American College of Physicians. *Annals of Internal Medicine*, *163*, 135–137.

- Daniel, H., & Butkus, R. (2015b). Appendix: Lesbian, gay, bisexual, and transgender health disparities: A policy position paper from the American College of Physicians. *Annals of Internal Medicine*, 163, [unpaginated].
- de Vries, A. L. C. & Cohen-Kettenis, P. T. (2012). Clinical management of gender dysphoria in children and adolescents: The Dutch Approach. *Journal of Homosexuality*, 59, 301–320.
- de Vries, A. L. C., McGuire, J. K., Steensma, T. D., Wagenaar, E. C. F., Doreleijers, T. A. H., & Cohen-Kettenis, P. T. (2014). Young adult psychological outcome after puberty suppression and gender reassignment. *Pediatrics*, 134, 1–9.
- de Vries, A. L. C., Steensma, T. D., Doreleijers, T. A. H., & Cohen-Kettenis, P. T. (2011). Puberty suppression in adolescents with gender identity disorder: A prospective follow-up study. *Journal of Sexual Medicine*, 8, 2276–2283.
- de Vries, A. L., Doreleijers, T. A., Steensma, T. D., & Cohen-Kettenis, P. T. (2011). Psychiatric comorbidity in gender dysphoric adolescents. *Journal of Child Psychology and Psychiatry*, 52, 1195–1202.
- de Vries, A. L., Noens, I. L., Cohen-Kettenis, P. T., van Berckelaer-Onnes, I. A., & Doreleijers, T. A. (2010). Autism spectrum disorders in gender dysphoric children and adolescents. *Journal of Autism and Developmental Disorders*, 40, 930–936.
- Delemarre-van de Waal, H. A., & Cohen-Kettenis, P. T. (2006). Clinical management of gender identity disorder in adolescents: A protocol on psychological and paediatric endocrinology aspects. *European Journal of Endocrinology*, 155 (suppl 1), S131–S137.
- Dhejne, C., Van Vlerken, R., Geylens, G., & Arcelus, J. (2016). Mental health and gender dysphoria: A review of the literature. *International Review of Psychiatry*, 28, 44–57.
- Dhejneberg, C., Öberg, K., Arver, S., & Landén, M. (2014). An analysis of all applications for sex reassignment surgery in Sweden, 1960–2010: Prevalence, incidence, and regrets. *Archives of Sexual Behavior*, 43, 1535–1545.
- Donnelly, L. (2019, Dec. 12). Children’s transgender clinic hit by 35 resignations in three years as psychologists warn of gender dysphoria ‘over-diagnoses’. *The Telegraph*. Retrieved from https://www.telegraph.co.uk/news/2019/12/12/childrens-transgender-clinic-hit-35-resignations-three-years/?WT.mc_id=tmg_share_em
- Drummond, K. D., Bradley, S. J., Peterson-Badali, M., & Zucker, K. J. (2008). A follow up study of girls with gender identity disorder. *Developmental Psychology*, 44, 34–45.
- Durwood, L., McLaughlin, K. A., & Olson, K. R. (2017). Mental health and self-worth in socially transitioned transgender youth. *Journal of the American Academy of Child & Adolescent Psychiatry*, 56, 116–123.
- Finland Ministry of Social Affairs and Health, Council for Choices in Health Care. (2020, June 11). *Medical treatment methods for dysphoria associated with variations in gender identity in minors—Recommendation*. Retrieved from [https://palveluvalikoima.fi/documents/1237350/22895008/Summary_minors_en+\(1\).pdf/fa2054c5-8c35-8492-59d6-b3de1c00de49/Summary_minors_en+\(1\).pdf?t=1631773838474](https://palveluvalikoima.fi/documents/1237350/22895008/Summary_minors_en+(1).pdf/fa2054c5-8c35-8492-59d6-b3de1c00de49/Summary_minors_en+(1).pdf?t=1631773838474)
- Finland Ministry of Social Affairs and Health, Council for Choices in Health Care. (2020, June 16). *Medical treatments for gender dysphoria that reduces functional capacity in transgender people—Recommendation*. Retrieved from <https://palveluvalikoima.fi/documents/1237350/22895838/Summary+transgender.pdf/2cc3f053-2e34-39ce-4e21-becd685b3044/Summary+transgender.pdf?t=1592318543000>

- Freeman, A., Mergl, R., Kohls, E., Székely, A., Gusmao, R., Arensman, E., Koburger, N., Hegerl, U., & Rummel-Kluge, C. (2017). A cross-national study on gender differences in suicide intent. *BMC Psychiatry, 17*, 234.
- Getahun, D., Nash, R., Flanders, W. D., Baird, T. C., Becerra-Culqui, T. A., Cromwell, L., ... Goodman, M. (2018). Cross-sex hormones and acute cardiovascular events in transgender persons: A cohort study. *Annals of Internal Medicine, 169*, 205–214.
- Gould, M. S., & Lake, A. M. (2013, Feb. 6). II.4 *The contagion of suicidal behavior*. Forum on Global Violence Prevention, Board on Global Health; Institute of Medicine; National Research Council. Contagion of Violence: Workshop Summary. National Academies Press: Washington, DC. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK207262/>
- Green, R. (1987). *The “sissy boy syndrome” and the development of homosexuality*. New Haven, CT: Yale University Press.
- Guillamon, A., Junque, C., & Gómez-Gil, E. (2016). A review of the status of brain structure research in transsexualism. *Archives of Sexual Behavior, 45*, 1615–1648.
- Haas, A. P., Eliason, M., Mays, V. M., Mathy, R. M., Cochran, S. D., D’Augelli, A. R., Silverman, M. M., Fisher, P. W., Hughes, T., Rosario, M., Russell, S. T., Malley, E., Reed, J., Litts, D. A., Haller, E., Sell, R. L., Remafedi, G., Bradford, J., Beautrais, A. L., Brown, G. K., ... Clayton, P. J. (2011). Suicide and suicide risk in lesbian, gay, bisexual, and transgender populations: Review and recommendations. *Journal of homosexuality, 58*, 10–51.
- Hembree, W. C., Cohen-Kettenis, P. T., Gooren, L., Hannema, S. E., Meyer, W. J., Murad, M. H., Rosenthal, S. M., Safer, T. D., Tangpricha, V., & T’Sjoen, G. G. (2017). Endocrine treatment of gender-dysphoric/ gender-incongruent persons: An Endocrine Society clinical practice guideline. *Journal of Clinical Endocrinology & Metabolism, 102*, 3869–3903.
- Hepp, U., Kraemer, B., Schnyder, U., Miller, N., & Delsignore, A. (2005). Psychiatric comorbidity in gender identity disorder. *Journal of Psychosomatic Research, 58*, 259–261.
- Hisle-Gorman, E., Schvey, N. A., Adirim, T. A., Rayne, A. K., Susi, A., Roberts, T. A., & Klein, D. A. (2021). Mental healthcare utilization of transgender youth before and after affirming treatment. *The Journal of Sexual Medicine, 18*, 1444–1454.
- Holt, V., Skagerberg, E., & Dunsford, M. (2016). Young people with features of gender dysphoria: Demographics and associated difficulties. *Clinical Child Psychology and Psychiatry, 21*, 108–118.
- Italiano, M. (2012). Comment on Cantor (2011) [Letter-to-the-Editor]. *Archives of Sexual Behavior, 41*, 1079.
- Jacobs, L. A., Rachlin, K., Erickson-Schroth, L., & Janssen, A. (2014). Gender dysphoria and co-occurring autism spectrum disorders: Review, case examples, and treatment considerations. *LGBT Health, 1*, 277–282.
- Janssen, A., Busa, S., Wernick, J. (2019). The complexities of treatment planning for transgender youth with co-occurring severe mental illness: A literature review and case study. *Archives of Sexual Behavior, 48*, 2003–2009.
- Janssen, A., Huang, H., & Duncan, C. (2016). Gender variance among youth with autism spectrum disorders: A retrospective chart review. *Transgender Health, 1*, 63–68.

- Kalin, N. H. (2020). Reassessing mental health treatment utilization reduction in transgender individuals after gender-affirming surgeries: A comment by the Editor on the process. *American Journal of Psychiatry*, *177*, 765.
- Kaltiala-Heino, R., Sumia, M., Työlajärvi, M., & Lindberg, N. (2015). Two years of gender identity service for minors: Overrepresentation of natal girls with severe problems in adolescent development. *Child and Adolescent Psychiatry and Mental Health*, *9*, 9.
- Kaltiala, R., Heino, E., Työlajärvi, & Suomalainen, L. (2020). Adolescent development and psychosocial functioning after starting cross-sex hormones for gender dysphoria. *Nordic Journal of Psychiatry*, *74*, 213–219.
- Klonsky, E. D., May, A. M., Saffer, B. Y. (2016). Suicide, suicide attempts, and suicidal ideation. *Annual Review of Clinical Psychology*, *12*, 307–330.
- Kuper, L. E., Stewart, S., Preston, S., Lau, M., & Lopez, X. (2020). Body dissatisfaction and mental health outcomes of youth on gender-affirming hormone therapy. *Pediatrics*, *145*, e20193006.
- Lee, J. Y., Finlayson, C., Olon-Kennedy, J., Garofalo, R., Chan, Y.-M., Glidden, D. V., & Rosenthal, S. M. (2020). Low bone mineral density in early pubertal transgender/gender diverse youth: Findings from the Trans Youth Care study. *Journal of the Endocrine Society*, *4*(4), bvaa065.
- Littman, L. (2021). Individuals treated for gender dysphoria with medical and/or surgical transition who subsequently detransitioned: A survey of 100 detransitioners. *Archives of Sexual Behavior*, *50*, 3353–3369.
- Littman, L. (2018). Parent reports of adolescents and young adults perceived to show signs of a rapid onset of gender dysphoria. *PLoS ONE*, *13*(8), e0202330.
- Marsh, S. (2020, Sept. 20). NHS to hold review into gender identity services for children and young people. *The Guardian*. Retrieved from <https://www.theguardian.com/society/2020/sep/22/nhs-to-hold-review-into-gender-identity-services-for-children-and-young-people>
- Marshall, E., Claes, L. L., Bouman, W. P., Witcomb, G. L., & Arcelus, J. (2016). Non-suicidal self-injury and suicidality in trans people: A systematic review of the literature. *International Review of Psychiatry*, *28*, 58–69.
- May, T., Pang, K., & Williams, K. J. (2016). Gender variance in children and adolescents with autism spectrum disorder from the National Database for Autism Research. *International Journal of Transgenderism*, *18*, 7–15.
- McCall, B. (2021, October 7). Psychiatrists shift stance on gender dysphoria, recommend therapy. *Medscape Psychiatry*. Retrieved from www.medscape.com/viewarticle/960390?src=soc_tw_share
- McNeil, J., Ellis, S. J., & Eccles, F. J. R. (2017). Suicide in trans populations: A systematic review of prevalence and correlates. *Psychology of Sexual Orientation and Gender Diversity*, *4*, 341–353.
- Medscape*. (2021, Oct. 7). Psychiatrists Shift Stance on Gender Dysphoria—Recommend Therapy. Retrieved from https://www.medscape.com/viewarticle/960390?src=soc_tw_share
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, *129*, 674–697.

- Money, J., & Russo, A. J. (1979). Homosexual outcome of discordant gender identity/ role in childhood: Longitudinal follow-up. *Journal of Pediatric Psychology*, 4, 29–41.
- MSNBC. (2015, Jan. 5). *Trans youth and suicide: An epidemic*. Retrieved from <https://www.msnbc.com/ronan-farrow/watch/trans-youth-and-suicide-an-epidemic-380294211712>
- Mueller, S. C., Guillamon, A., Zubiaurre-Elorza, L., Schneider, M. A., T’Sjoen, G., ... Luders, E. (2021). The neuroanatomy of transgender identity: Mega-analytic findings from the ENIGMA transgender persons working group. *Journal of Sexual Medicine*, 18, 1122–1129.
- Mustanski, B. S., Garofalo, R., & Emerson, E. M. (2010). Mental health disorders, psychological distress, and suicidality in a diverse sample of lesbian, gay, bisexual, and transgender youths. *American Journal of Public Health*, 100, 2426–2432.
- Nainggolan, L. (2021, May 12). Hormonal Tx of youth with gender dysphoria stops in Sweden. *Medscape Psychiatry*. Retrieved from www.medscape.com/viewarticle/950964?src=soc_tw_share
- National Health Service (NHS). (2020, Sept. 22). NHS announces independent review into gender identity services for children and young people. United Kingdom. Retrieved from <https://www.england.nhs.uk/2020/09/nhs-announces-independent-review-into-gender-identity-services-for-children-and-young-people/>
- Nock, M. K., Borges, G., Bromet, E. J., Alonso, J., Angermeyer, M., Beautrais, A....Williams, D. (2008). Cross-national prevalence and risk factors for suicidal ideation, plans and attempts. *British Journal of Psychiatry*, 192, 98–105.
- Olson, K. R., Durwood, L., DeMeules, M., & McLaughlin, K. A. (2016). Mental health of transgender children who are supported in their identities. *Pediatrics*, 137, e20153223.
- Orange, R. (2020, Feb 22). Teenage transgender row splits Sweden as dysphoria diagnoses soar by 1,500%: New health report and TV debates highlight backlash against gender reassignment. *The Guardian*. Retrieved from <https://www.theguardian.com/society/2020/feb/22/ssweden-teenage-transgender-row-dysphoria-diagnoses-soar>
- Pediatric Endocrine Society & Endocrine Society. (2020, December 15). *Transgender health*. Retrieved from www.endocrine.org/advocacy/position-statements/transgender-health.
- Pediatric Endocrine Society. (Online). About PES. Retrieved from <https://pedsendo.org/about-pes/>
- Rae, J. R., Gülgoz, S., Durwood, L., DeMeules, M., Lowe, R., Lindquist, G., & Olson, K. R. (2019). Predicting early-childhood gender transitions. *Psychological Science*, 30, 669–681.
- Rafferty, J., AAP Committee on psychosocial aspects of child and family health, AAP Committee on adolescence, AAP Section on lesbian, gay, bisexual, and transgender health and wellness. (2018). Ensuring comprehensive care and support for transgender and gender-diverse children and adolescents. *Pediatrics*, 142(4), e20182162
- Rametti, G., Carrillo, B., Gómez-Gil, E., Junque, C., Zubiarre-Elorza, L., Segovia, S., ... Guillamon, A. (2011). The microstructure of white matter in male to female transsexuals before cross-sex hormonal treatment. A DTI study. *Journal of Psychiatric Research*, 45, 949–954.
- Rayner, G. (2018, Sept. 16). Minister orders inquiry into 4000 percent rise in children wanting to change sex. *The Telegraph*. Retrieved from

- <https://www.telegraph.co.uk/politics/2018/09/16/minister-orders-inquiry-4000-per-cent-rise-children-wanting/>
- Reisner, S. L., Veters, R., Leclerc, M., Zaslów, S., Wolfrum, S., Shumer, D., & Mimiaga, M. J. (2015). Mental health of transgender youth in care at an adolescent urban community health center: A matched retrospective cohort study. *Journal of Adolescent Health, 56*, 274–279.
- Reuter, T. R., Sharp, C., Kalpakci, A. H., Choi, H. J., & Temple, J. R. (2016). Sexual orientation and Borderline Personality Disorder features in a community sample of adolescents. *Journal of Personality Disorders, 30*, 694–707.
- Rodriguez-Seiljas, C., Morgan, T. A., & Zimmerman, M. (2021). A population-based examination of criterion-level disparities in the diagnosis of Borderline Personality Disorder among sexual minority adults. *Assessment, 28*, 1097–1109.
- Royal Australian & New Zealand College of Psychiatrists. (2021, August). *Recognising and addressing the mental health needs of people experiencing Gender Dysphoria/Gender Incongruence* [Position Statement 103]. Retrieved from <https://www.ranzcp.org/news-policy/policy-and-advocacy/position-statements/gender-dysphoria>
- Safer, J. D., Tangpricha, V. (2019). In the clinic: Care of the transgender patient. *Annals of Internal Medicine, 171*(1), ITC1–ITC6.
- Samaritans. (2020). *Media guidelines for reporting suicide*. Ewell, Surrey, UK. Retrieved from https://media.samaritans.org/documents/Media_Guidelines_FINAL_v2_TABa8C6.pdf
- Savic, I., & Arver, S. (2011). Sex dimorphism of the brain in male-to-female transsexuals. *Cerebral Cortex, 21*, 2525–2533.
- Schumm, W. R., & Crawford, D. W. (2020). Is research on transgender children what it seems? Comments on recent research on transgender children with high levels of parental support. *The Linacre Quarterly, 87*, 9–24.
- Schumm, W. R., Crawford, D. W., Fawver, M. M., Gray, N. K., Niess, Z. M., & Wagner, A. D. (2019). Statistical errors in major journals: Two case studies used in a basic statistics class to assess understanding of applied statistics. *Psychology and Education—An Interdisciplinary Journal, 56*, 35–42.
- Singh, D., Bradley, S. J., & Zucker, K. J. (2021). A follow-up study of boys with gender identity disorder. *Frontiers in Psychiatry, 12*, 632784.
- Skagerberg, E., Parkinson, R., & Carmichael, P. (2013). Self-harming thoughts and behaviors in a group of children and adolescents with gender dysphoria. *International Journal of Transgenderism, 14*, 86–92.
- Skelly, A. C., Dettori, J. R., & Brodt, E. D. (2012). Assessing bias: The importance of considering confounding. *Evidence-based Spine-Care Journal, 3*, 9–12.
- Skorska, M. N., Chavez, S., Devenyi, G. A., Patel, R., Thurston, L. T., Lai, M.-C., Zucker, K. J., Chakravarty, M. M., Lobaugh, N. J., & VanderLaan, D. P. (2021). A multi-modal MRI analysis of cortical structure in relation to gender dysphoria, sexual orientation, and age in adolescents. *Journal of Clinical Medicine, 10*, 345.
- Steensma, T. D., Cohen-Kettenis, P. T., & Zucker, K. J. (2018). Evidence for a change in the sex ratio of children referred for gender dysphoria: Data from the Center of Expertise on Gender Dysphoria in Amsterdam (1988–2016). *Journal of Sex & Marital Therapy, 44*, 713–715.
- Steensma, T. D., McGuire, J. K., Kreukels, B. P. C., Beekman, A. J., & Cohen-Kettenis, P. T. (2013). Factors associated with desistence and persistence of childhood gender

- dysphoria: A quantitative follow-up study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 52, 582–590.
- Strang, J. F., Kenworthy, L., Dominska, A., Sokoloff, J., Kenealy, L. E., Berl, M., ... Wallace, G. L. (2014). Increased gender variance in autism spectrum disorders and attention deficit hyperactivity disorder. *Archives of Sexual Behavior*, 43, 1525–1533.
- Strang, J. F., Meagher, H., Kenworthy, L., de Vries, A. L., Menvielle, E., Leibowitz, S., ... Anthony, L. G. (2016). Initial clinical guidelines for co-occurring autism spectrum disorder and gender dysphoria or incongruence in adolescents. *Journal of Clinical Child and Adolescent Psychology*, 47, 105–115.
- Swedish Agency for Health Technology Assessment and Assessment of Social Services. (2019, Sept. 6). *Gender dysphoria in children and adolescents: An inventory of the literature. A systematic scoping review*. Retrieved from <https://www.sbu.se/en/publications/sbu-bereder/gender-dysphoria-in-children-and-adolescents-an-inventory-of-the-literature/>
- Swedish National Board of Health and Welfare (NBHW). (2020, Feb. 22). Uppdaterade rekommendationer för hormonbehandling vid könsdysfori hos unga. [*Updated recommendations for hormone therapy for gender dysphoria in young people.*] Author: Socialstyrelsen. Retrieved from <https://www.socialstyrelsen.se/om-socialstyrelsen/pressrum/press/uppdaterade-rekommendationer-for-hormonbehandling-vid-konsdysfori-hos-unga/>
- Telfer, M. M., Tollit, M. A., Pace, C. C., & Pang, K. C. (2018). Australian standards of care and treatment guidelines for transgender and gender diverse children and adolescents. *The Medical Journal of Australia*, 209, 132–136.
- Tetelepta, B. (2021, Feb 27). More research is urgently needed into transgender care for young people: 'Where does the large flow of children come from?' [translated]. Algemeen Dagblad. Retrieved from www.ad.nl/nijmegen/dringend-meer-onderzoek-nodig-naar-transgenderzorg-aan-jongeren-waar-komt-de-grote-stroom-kinderen-vandaan~aec79d00/?referrer=https%3A%2F%2Ft.co%2F
- Thrower, E., Bretherton, I., Pang, K. C., Zajac, J. D., & Cheung, A. S. (2020). Prevalence of Autism Spectrum Disorder and Attention-Deficit Hyperactivity Disorder amongst individuals with Gender Dysphoria: A systematic review. *Journal of Autism and Developmental Disorders*, 50, 695–706.
- Turban, J. (2021, March 16). Trans girls belong on girls' sports teams. *Scientific American*. www.scientificamerican.com/article/trans-girls-belong-on-girls-sports-teams/
- Turban, J. L., Loo, S. S., Almazan, A. N., & Keuroghlian, A. S. (2021). Factors leading to “detransition” among transgender and gender diverse people in the United States: A mixed-methods analysis. *LGBT Health*, 8, 273–280.
- Turecki, G., & Brent, D. A. (2016). Suicide and suicidal behavior. *Lancet*, 387, 1227–1239.
- United Kingdom National Health Service (NHS), National Institute for Health and Care Excellence, (2021, March 11). *Evidence review: Gonadotrophin releasing hormone analogues for children and adolescents with gender dysphoria*. Retrieved from www.evidence.nhs.uk/document?id=2334888&returnUrl=search%3ffrom%3d2020-01-01%26q%3dgender%2bdysphoria%26sp%3don%26to%3d2021-03-31
- van der Miesen, A. I. R., Steensma, T. D., de Vries, A. L. C., Bos, H., Popma, A. (2020). Psychological functioning in transgender adolescence before and after gender-affirmative care compared with cisgender general population peers. *Journal of Adolescent Health*, 66, 699–704.

- Vandenbussche, E. (2021). Detransition-related needs and support: A cross-sectional online survey. *Journal of Homosexuality, 69*, 1602–1620.
- Wallien, M. S. C., & Cohen-Kettenis, P. T. (2008). Psychosexual outcome of gender-dysphoric children. *Journal of the American Academy of Child & Adolescent Psychiatry, 47*, 1413–1423.
- Wallien, M. S., Swaab, H., & Cohen-Kettenis, P. T. (2007). Psychiatric comorbidity among children with gender identity disorder. *Journal of the American Academy of Child and Adolescent Psychiatry, 46*, 1307–1314.
- Warrier, V., Greenberg, D. M., Weir, E., Buckingham, C., Smith, P., Lai, M.-C., Allison, C., & Baron-Cohen, S. (2020). Elevated rates of autism, other neurodevelopmental and psychiatric diagnoses, and autistic traits in transgender and gender-diverse individuals. *Nature Communications, 11*, 3959.
- Wiepjes, C. M., den Heijer, M., Bremmer, M. A., Nota, N. M., de Block, C. J. M., Coumou, B. J. G., & Steensma, T. D. (2020). Trends in suicide death risk in transgender people: Results from the Amsterdam Cohort of Gender Dysphoria study (1972–2017). *Acta Psychiatrica Scandinavica, 141*, 486–491.
- Wiepjes, C. M., Nota, N. M., de Bok, C. J. M., Klaver, M., de Vries, A. L. C., Wensing-Kruger, S. A., de Jongh, R. T., Bouman, M.-B., Steensma, T. D., Cohen-Kettenis, P., Gooren, L. J. G., Kreukels B. P. C., & den Heijer, M. (2018). The Amsterdam Cohort of Gender Dysphoria Study (1972–2015): Trends in prevalence, treatment, and regrets. *Journal of Sexual Medicine, 15*, 582–590.
- Witchel, S. F. (2018). Disorders of sex development. *Best Practice & Research in Clinical Obstetrics and Gynaecology, 48*, 90–102.
- Wood, H., Sasaki, S., Bradley, S. J., Singh, D., Fantus, S., Own-Anderson, A., Di Giacomo, A., Bain, J., & Zucker, K. J. (2013). Patterns of referral to a gender identity service for children and adolescents (1976–2011): Age, sex ratio, and sexual orientation. *Journal of Sex & Marital Therapy, 39*, 1–6.
- World Health Organization (2022). *Age standardized suicide rates (per 100 000 population)*. Retrieved from <https://www.who.int/data/gho/data/themes/mental-health/suicide-rates>
- Zanarini, M. C., Magni, L. R., Temes, C. M., Hein, K. E., Aguirre, B. A., & Goodman, M. (2021). Sexual orientation and gender of intimate relationship partners among adolescents with BPD and psychiatrically healthy adolescents. *Journal of Personality Disorders, 35* (Suppl. B), 1–7.
- Zucker, K. J. (2018). The myth of persistence: Response to “A critical commentary on follow-up studies and ‘desistance’ theories about transgender and gender nonconforming children” by Temple Newhook et al. (2018). *International Journal of Transgenderism, 19*, 231–245.
- Zucker, K. J. (2019). Adolescents with gender dysphoria: Reflections on some contemporary clinical and research issues. *Archives of Sexual Behavior, 48*, 1983–1992.
- Zucker, K. J. (2020). Debate: Different strokes for different folks. *Child and Adolescent Mental Health, 25*, 36–37.
- Zucker, K. J., & Bradley, S. J. (1995). *Gender identity disorder and psychosexual problems in children and adolescents*. New York: Guilford Press.
- Zucker, K. J., Bradley, S. J., Owen-Anderson, A., Kibblewhite, S. J., Wood, H., Singh, D., & Choi, K. (2012). Demographics, behavior problems, and psychosexual characteristics of

adolescents with gender identity disorder or transvestic fetishism. *Journal of Sex & Marital Therapy*, 38, 151–189.

Zuger, B. (1984). Early effeminate behavior in boys: Outcome and significance for homosexuality. *Journal of Nervous and Mental Disease*, 172, 90–97.

APPENDICES

Appendix 1

Curriculum Vita

Appendix 2

The Outcomes Studies of Childhood-Onset Gender Dysphoria

Appendix 3

Cantor, J. M. (2020). Transgender and gender diverse children and adolescents: Fact-checking of AAP policy. *Journal of Sex & Marital Therapy, 46*, 307–313. doi: 10.1080/0092623X.2019.1698481

Appendix 4

WPATH Standards of Care For The Health Of Transsexual, Transgender, And Gender-Nonconforming People (Version 7), Chapter 6 (Adolescents)

Appendix 5

WPATH Standards of Care (Version 8),

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EDUCATION

Postdoctoral Fellowship Centre for Addiction and Mental Health • Toronto, Canada	Jan., 2000–May, 2004
Doctor of Philosophy Psychology • McGill University • Montréal, Canada	Sep., 1993–Jun., 2000
Master of Arts Psychology • Boston University • Boston, MA	Sep., 1990–Jan., 1992
Bachelor of Science Interdisciplinary Science • Rensselaer Polytechnic Institute • Troy, NY Concentrations: Computer science, mathematics, physics	Sep. 1984–Aug., 1988

EMPLOYMENT HISTORY

Director Toronto Sexuality Centre • Toronto, Canada	Feb., 2017–Present
Senior Scientist (Inaugural Member) Campbell Family Mental Health Research Institute Centre for Addiction and Mental Health • Toronto, Canada	Aug., 2012–May, 2018
Senior Scientist Complex Mental Illness Program Centre for Addiction and Mental Health • Toronto, Canada	Jan., 2012–May, 2018
Head of Research Sexual Behaviours Clinic Centre for Addiction and Mental Health • Toronto, Canada	Nov., 2010–Apr. 2014
Research Section Head Law & Mental Health Program Centre for Addiction and Mental Health • Toronto, Canada	Dec., 2009–Sep. 2012
Psychologist Law & Mental Health Program Centre for Addiction and Mental Health • Toronto, Canada	May, 2004–Dec., 2011

Clinical Psychology Intern Centre for Addiction and Mental Health • Toronto, Canada	Sep., 1998–Aug., 1999
Teaching Assistant Department of Psychology McGill University • Montréal, Canada	Sep., 1993–May, 1998
Pre-Doctoral Practicum Sex and Couples Therapy Unit Royal Victoria Hospital • Montréal, Canada	Sep., 1993–Jun., 1997
Pre-Doctoral Practicum Department of Psychiatry Queen Elizabeth Hospital • Montréal, Canada	May, 1994–Dec., 1994

ACADEMIC APPOINTMENTS

Associate Professor Department of Psychiatry University of Toronto Faculty of Medicine • Toronto, Canada	Jul., 2010–May, 2019
Adjunct Faculty Graduate Program in Psychology York University • Toronto, Canada	Aug. 2013–Jun., 2018
Associate Faculty (Hon) School of Behavioural, Cognitive & Social Science University of New England • Armidale, Australia	Oct., 2017–Dec., 2017
Assistant Professor Department of Psychiatry University of Toronto Faculty of Medicine • Toronto, Canada	Jun., 2005–Jun., 2010
Adjunct Faculty Clinical Psychology Residency Program St. Joseph's Healthcare • Hamilton, Canada	Sep., 2004–Jun., 2010

PUBLICATIONS

1. Cantor, J. M. (2020). Transgender and gender diverse children and adolescents: Fact-checking of AAP policy. *Journal of Sex & Marital Therapy*, *46*, 307–313. doi: 10.1080/0092623X.2019.1698481
2. Shirazi, T., Self, H., Cantor, J., Dawood, K., Cardenas, R., Rosenfield, K., Ortiz, T., Carré, J., McDaniel, M., Blanchard, R., Balasubramanian, R., Delaney, A., Crowley, W., S Marc Breedlove, S. M., & Puts, D. (2020). Timing of peripubertal steroid exposure predicts visuospatial cognition in men: Evidence from three samples. *Hormones and Behavior*, *121*, 104712.
3. Stephens, S., Seto, M. C., Cantor, J. M., & Lalumière, M. L. (2019). The Screening Scale for Pedophilic Interest-Revised (SSPI-2) may be a measure of pedohebephilia. *Journal of Sexual Medicine*, *16*, 1655–1663. doi: 10.1016/j.jsxm.2019.07.015
4. McPhail, I. V., Hermann, C. A., Fernane, S., Fernandez, Y. M., Nunes, K. L., & Cantor, J. M. (2019). Validity in phallometric testing for sexual interests in children: A meta-analytic review. *Assessment*, *26*, 535–551. doi: 10.1177/1073191117706139
5. Cantor, J. M. (2018). Can pedophiles change? *Current Sexual Health Reports*, *10*, 203–206. doi: 10.1007/s11930-018-0165-2
6. Cantor, J. M., & Fedoroff, J. P. (2018). Can pedophiles change? Response to opening arguments and conclusions. *Current Sexual Health Reports*, *10*, 213–220. doi: 10.1007/s11930-018-0167-0z
7. Stephens, S., Seto, M. C., Goodwill, A. M., & Cantor, J. M. (2018). Age diversity among victims of hebephilic sexual offenders. *Sexual Abuse*, *30*, 332–339. doi: 10.1177/1079063216665837
8. Stephens, S., Seto, M. C., Goodwill, A. M., & Cantor, J. M. (2018). The relationships between victim age, gender, and relationship polymorphism and sexual recidivism. *Sexual Abuse*, *30*, 132–146. doi: 10.1177/1079063216630983
9. Stephens, S., Newman, J. E., Cantor, J. M., & Seto, M. C. (2018). The Static-99R predicts sexual and violent recidivism for individuals with low intellectual functioning. *Journal of Sexual Aggression*, *24*, 1–11. doi: 10.1080/13552600.2017.1372936
10. Cantor, J. M. (2017). Sexual deviance or social deviance: What MRI research reveals about pedophilia. *ATSA Forum*, *29*(2). Association for the Treatment of Sexual Abusers. Beaverton, OR. <http://newsmanager.commpartners.com/atsa/issues/2017-03-15/2.html>
11. Walton, M. T., Cantor, J. M., Bhullar, N., & Lykins, A. D. (2017). Hypersexuality: A critical review and introduction to the “Sexhavior Cycle.” *Archives of Sexual Behavior*, *46*, 2231–2251. doi: 10.1007/s10508-017-0991-8
12. Stephens, S., Leroux, E., Skilling, T., Cantor, J. M., & Seto, M. C. (2017). A taxometric analysis of pedophilia utilizing self-report, behavioral, and sexual arousal indicators. *Journal of Abnormal Psychology*, *126*, 1114–1119. doi: 10.1037/abn0000291
13. Fazio, R. L., Dyshniku, F., Lykins, A. D., & Cantor, J. M. (2017). Leg length versus torso length in pedophilia: Further evidence of atypical physical development early in life. *Sexual Abuse: A Journal of Research and Treatment*, *29*, 500–514. doi: 10.1177/1079063215609936
14. Seto, M. C., Stephens, S., Lalumière, M. L., & Cantor, J. M. (2017). The Revised Screening Scale for Pedophilic Interests (SSPI-2): Development and criterion-related validation. *Sexual Abuse: A Journal of Research and Treatment*, *29*, 619–635. doi:

10.1177/1079063215612444

15. Stephens, S., Cantor, J. M., Goodwill, A. M., & Seto, M. C. (2017). Multiple indicators of sexual interest in prepubescent or pubescent children as predictors of sexual recidivism. *Journal of Consulting and Clinical Psychology, 85*, 585–595. doi: 10.1037/ccp0000194
16. Stephens, S., Seto, M. C., Goodwill, A. M., & Cantor, J. M. (2017). Evidence of construct validity in the assessment of hebephilia. *Archives of Sexual Behavior, 46*, 301–309. doi: 10.1007/s10508-016-0907-z
17. Walton, M. T., Cantor, J. M., & Lykins, A. D. (2017). An online assessment of personality, psychological, and sexuality trait variables associated with self-reported hypersexual behavior. *Archives of Sexual Behavior, 46*, 721–733. doi: 10.1007/s10508-015-0606-1
18. Cantor, J. M., Lafaille, S. J., Hannah, J., Kucyi, A., Soh, D. W., Girard, T. A., & Mikulis, D. J. (2016). Independent component analysis of resting-state functional magnetic resonance imaging in pedophiles. *Journal of Sexual Medicine, 13*, 1546–1554. doi: 10.1016/j.jsxm.2016.08.004
19. Cantor, J. M., & McPhail, I. V. (2016). Non-offending pedophiles. *Current Sexual Health Reports, 8*, 121–128. doi: 10.1007/s11930-016-0076-z
20. Cantor, J. M. (2015). Milestones in sex research: What causes pedophilia? In J. S. Hyde, J. D. DeLamater, & E. S. Byers (Eds.), *Understanding human sexuality* (6th Canadian ed.) (pp. 452–453). Toronto: McGraw-Hill Ryerson.
21. Cantor, J. M. (2015). Pedophilia. In R. Cautin & S. Lilienfeld (Eds.), *Encyclopedia of clinical psychology*. Malden, MA: Wiley-Blackwell. doi: 10.1002/9781118625392.wbecp184
22. Nunes, K. L., & Cantor, J. M. (2015). Sex offenders. In P. Whelehan & A. Bolin (Eds.), *International encyclopedia of human sexuality*. Malden, MA: Wiley-Blackwell.
23. Cantor, J. M., Lafaille, S., Soh, D. W., Moayedi, M., Mikulis, D. J., & Girard, T. A. (2015). Diffusion Tensor Imaging of pedophilia. *Archives of Sexual Behavior, 44*, 2161–2172. doi: 10.1007/s10508-015-0599-9
24. Cantor, J. M., & McPhail, I. V. (2015). Sensitivity and specificity for the phallometric test of hebephilia. *Journal of Sexual Medicine, 12*, 1940–1950. doi: 10.1111/jsm12970
25. Dyshniku, F., Murray, M. E., Fazio, R. L., Lykins, A. D., & Cantor, J. M. (2015). Minor physical anomalies as a window into the prenatal origins of pedophilia. *Archives of Sexual Behavior, 44*, 2151–2159. doi: 10.1007/s10508-015-0564-7
26. Fazio, R. L., & Cantor, J. M. (2015). Factor structure of the Edinburgh Handedness Inventory versus the Fazio Laterality Inventory in a population with established atypical handedness. *Applied Neuropsychology, 22*, 156–160. doi: 10.1080/23279095.2014.940043
27. Lykins, A. D., Robinson, J. J., LeBlanc, S., & Cantor, J. M. (2015). The effects of common medications on volumetric phallometry. *Journal of Sexual Aggression, 21*, 385–393. doi: 10.1080/13552600.2014.900121
28. Sutton, K. S., Stratton, N., Pytyck, J., Kolla, N. J., & Cantor, J. M. (2015). Patient characteristics by type of hypersexuality referral: A quantitative chart review of 115 consecutive male cases. *Journal of Sex and Marital Therapy, 41*, 563–580. doi: 10.1080/0092623X.2014.935539
29. Cantor, J. M. (2014). Gold star pedophiles in general sex therapy practice. In Y. M. Binik and K. Hall (Eds.), *Principles and practice of sex therapy* (5th ed.) (pp. 219–234). New York: Guilford.

30. Cantor, J. M., & Sutton, K. S. (2014). Paraphilia, gender dysphoria, and hypersexuality. In P. H. Blaney & T. Millon (Eds.), *Oxford textbook of psychopathology* (3rd ed.) (pp. 589–614). New York: Oxford University Press.
31. Chivers, M. L., Roy, C., Grimbos, T., Cantor, J. M., & Seto, M. C. (2014). Specificity of sexual arousal for sexual activities in men and women with conventional and masochistic sexual interests. *Archives of Sexual Behavior*, *43*, 931–940. doi: 10.1007/s10508-013-0174-1
32. Fazio, R. L., Lykins, A. D., & Cantor, J. M. (2014). Elevated rates of atypical-handedness in paedophilia: Theory and implications. *Laterality*, *19*, 690–704. doi: 10.1080/1357650X.2014.898648
33. Lykins, A. D., & Cantor, J. M. (2014). Vorarephilia: A case study in masochism and erotic consumption. *Archives of Sexual Behavior*, *43*, 181–186. doi: 10.1007/s10508-013-0185-y
34. Cantor, J. M., Klein, C., Lykins, A., Rullo, J. E., Thaler, L., & Walling, B. R. (2013). A treatment-oriented typology of self-identified hypersexuality referrals. *Archives of Sexual Behavior*, *42*, 883–893. doi: 10.1007/s10508-013-0085-1
35. Blanchard, R., Kuban, M. E., Blak, T., Klassen, P. E., Dickey, R., & Cantor, J. M. (2012). Sexual attraction to others: A comparison of two models of alloerotic responding in men. *Archives of Sexual Behavior*, *41*, 13–29. doi: 10.1007/s10508-010-9675-3
36. Cantor, J. M. (2012). Brain research and pedophilia: What it says and what it means [Invited article]. *Sex Offender Law Report*, *13*, 81–85.
37. Cantor, J. M. (2012). Is homosexuality a paraphilia? The evidence for and against. *Archives of Sexual Behavior*, *41*, 237–247. doi: 10.1007/s10508-012-9900-3
38. Lykins, A. D., Cantor, J. M., Kuban, M. E., Blak, T., Dickey, R., Klassen, P. E., & Blanchard, R. (2010). Sexual arousal to female children in gynephilic men. *Sexual Abuse: A Journal of Research and Treatment*, *22*, 279–289. doi: 10.1177/1079063210372141
39. Lykins, A. D., Cantor, J. M., Kuban, M. E., Blak, T., Dickey, R., Klassen, P. E., & Blanchard, R. (2010). The relation between peak response magnitudes and agreement in diagnoses obtained from two different phallometric tests for pedophilia. *Sexual Abuse: A Journal of Research and Treatment*, *22*, 42–57. doi: 10.1177/1079063209352094
40. Cantor, J. M., Blanchard, R., & Barbaree, H. E. (2009). Sexual disorders. In P. H. Blaney & T. Millon (Eds.), *Oxford textbook of psychopathology* (2nd ed.) (pp. 527–548). New York: Oxford University Press.
41. Barbaree, H. E., Langton, C. M., Blanchard, R., & Cantor, J. M. (2009). Aging versus stable enduring traits as explanatory constructs in sex offender recidivism: Partitioning actuarial prediction into conceptually meaningful components. *Criminal Justice and Behavior: An International Journal*, *36*, 443–465. doi: 10.1177/0093854809332283
42. Blanchard, R., Kuban, M. E., Blak, T., Cantor, J. M., Klassen, P. E., & Dickey, R. (2009). Absolute versus relative ascertainment of pedophilia in men. *Sexual Abuse: A Journal of Research and Treatment*, *21*, 431–441. doi: 10.1177/1079063209347906
43. Blanchard, R., Lykins, A. D., Wherrett, D., Kuban, M. E., Cantor, J. M., Blak, T., Dickey, R., & Klassen, P. E. (2009). Pedophilia, hebephilia, and the DSM–V. *Archives of Sexual Behavior*, *38*, 335–350. doi: 10.1007/s10508-008-9399-9.
44. Cantor, J. M. (2008). MRI research on pedophilia: What ATSA members should know

- [Invited article]. *ATSA Forum*, 20(4), 6–10.
45. Cantor, J. M., Kabani, N., Christensen, B. K., Zipursky, R. B., Barbaree, H. E., Dickey, R., Klassen, P. E., Mikulis, D. J., Kuban, M. E., Blak, T., Richards, B. A., Hanratty, M. K., & Blanchard, R. (2008). Cerebral white matter deficiencies in pedophilic men. *Journal of Psychiatric Research*, 42, 167–183. doi: 10.1016/j.jpsychires.2007.10.013
 46. Blanchard, R., Kolla, N. J., Cantor, J. M., Klassen, P. E., Dickey, R., Kuban, M. E., & Blak, T. (2007). IQ, handedness, and pedophilia in adult male patients stratified by referral source. *Sexual Abuse: A Journal of Research and Treatment*, 19, 285–309. doi: 10.1007/s11194-007-9049-0
 47. Cantor, J. M., Kuban, M. E., Blak, T., Klassen, P. E., Dickey, R., & Blanchard, R. (2007). Physical height in pedophilia and hebephilia. *Sexual Abuse: A Journal of Research and Treatment*, 19, 395–407. doi: 10.1007/s11194-007-9060-5
 48. Blanchard, R., Cantor, J. M., Bogaert, A. F., Breedlove, S. M., & Ellis, L. (2006). Interaction of fraternal birth order and handedness in the development of male homosexuality. *Hormones and Behavior*, 49, 405–414. doi: 10.1016/j.yhbeh.2005.09.002
 49. Blanchard, R., Kuban, M. E., Blak, T., Cantor, J. M., Klassen, P., & Dickey, R. (2006). Phallometric comparison of pedophilic interest in nonadmitting sexual offenders against stepdaughters, biological daughters, other biologically related girls, and unrelated girls. *Sexual Abuse: A Journal of Research and Treatment*, 18, 1–14. doi: 10.1007/s11194-006-9000-9
 50. Blanchard, R., Cantor, J. M., & Robichaud, L. K. (2006). Biological factors in the development of sexual deviance and aggression in males. In H. E. Barbaree & W. L. Marshall (Eds.), *The juvenile sex offender* (2nd ed., pp. 77–104). New York: Guilford.
 51. Cantor, J. M., Kuban, M. E., Blak, T., Klassen, P. E., Dickey, R., & Blanchard, R. (2006). Grade failure and special education placement in sexual offenders' educational histories. *Archives of Sexual Behavior*, 35, 743–751. doi: 10.1007/s10508-006-9018-6
 52. Seto, M. C., Cantor, J. M., & Blanchard, R. (2006). Child pornography offenses are a valid diagnostic indicator of pedophilia. *Journal of Abnormal Psychology*, 115, 610–615. doi: 10.1037/0021-843X.115.3.610
 53. Zucker, K. J., Mitchell, J. N., Bradley, S. J., Tkachuk, J., Cantor, J. M., & Allin, S. M. (2006). The Recalled Childhood Gender Identity/Gender Role Questionnaire: Psychometric properties. *Sex Roles*, 54, 469–483. doi 10.1007/s11199-006-9019-x
 54. Cantor, J. M., Blanchard, R., Robichaud, L. K., & Christensen, B. K. (2005). Quantitative reanalysis of aggregate data on IQ in sexual offenders. *Psychological Bulletin*, 131, 555–568. doi: 10.1037/0033-2909.131.4.555
 55. Cantor, J. M., Klassen, P. E., Dickey, R., Christensen, B. K., Kuban, M. E., Blak, T., Williams, N. S., & Blanchard, R. (2005). Handedness in pedophilia and hebephilia. *Archives of Sexual Behavior*, 34, 447–459. doi: 10.1007/s10508-005-4344-7
 56. Cantor, J. M., Blanchard, R., Christensen, B. K., Dickey, R., Klassen, P. E., Beckstead, A. L., Blak, T., & Kuban, M. E. (2004). Intelligence, memory, and handedness in pedophilia. *Neuropsychology*, 18, 3–14. doi: 10.1037/0894-4105.18.1.3
 57. Blanchard, R., Kuban, M. E., Klassen, P., Dickey, R., Christensen, B. K., Cantor, J. M., & Blak, T. (2003). Self-reported injuries before and after age 13 in pedophilic and non-pedophilic men referred for clinical assessment. *Archives of Sexual Behavior*, 32, 573–581.

58. Blanchard, R., Christensen, B. K., Strong, S. M., Cantor, J. M., Kuban, M. E., Klassen, P., Dickey, R., & Blak, T. (2002). Retrospective self-reports of childhood accidents causing unconsciousness in phallometrically diagnosed pedophiles. *Archives of Sexual Behavior, 31*, 511–526.
59. Cantor, J. M., Blanchard, R., Paterson, A. D., Bogaert, A. F. (2002). How many gay men owe their sexual orientation to fraternal birth order? *Archives of Sexual Behavior, 31*, 63–71.
60. Cantor, J. M., Binik, Y. M., & Pfaus, J. G. (1999). Chronic fluoxetine inhibits sexual behavior in the male rat: Reversal with oxytocin. *Psychopharmacology, 144*, 355–362.
61. Binik, Y. M., Cantor, J., Ochs, E., & Meana, M. (1997). From the couch to the keyboard: Psychotherapy in cyberspace. In S. Kiesler (Ed.), *Culture of the internet* (pp. 71–100). Mahwah, NJ: Lawrence Erlbaum.
62. Johnson, M. K., O'Connor, M., & Cantor, J. (1997). Confabulation, memory deficits, and frontal dysfunction. *Brain and Cognition, 34*, 189–206.
63. Keane, M. M., Gabrieli, J. D. E., Monti, L. A., Fleischman, D. A., Cantor, J. M., & Nolan, J. S. (1997). Intact and impaired conceptual memory processes in amnesia. *Neuropsychology, 11*, 59–69.
64. Pilkington, N. W., & Cantor, J. M. (1996). Perceptions of heterosexual bias in professional psychology programs: A survey of graduate students. *Professional Psychology: Research and Practice, 27*, 604–612.

PUBLICATIONS

LETTERS AND COMMENTARIES

1. Cantor, J. M. (2015). Research methods, statistical analysis, and the phallometric test for hebephilia: Response to Fedoroff [Editorial Commentary]. *Journal of Sexual Medicine, 12*, 2499–2500. doi: 10.1111/jsm.13040
2. Cantor, J. M. (2015). In his own words: Response to Moser [Editorial Commentary]. *Journal of Sexual Medicine, 12*, 2502–2503. doi: 10.1111/jsm.13075
3. Cantor, J. M. (2015). Purported changes in pedophilia as statistical artefacts: Comment on Müller et al. (2014). *Archives of Sexual Behavior, 44*, 253–254. doi: 10.1007/s10508-014-0343-x
4. McPhail, I. V., & Cantor, J. M. (2015). Pedophilia, height, and the magnitude of the association: A research note. *Deviant Behavior, 36*, 288–292. doi: 10.1080/01639625.2014.935644
5. Soh, D. W., & Cantor, J. M. (2015). A peek inside a furry convention [Letter to the Editor]. *Archives of Sexual Behavior, 44*, 1–2. doi: 10.1007/s10508-014-0423-y
6. Cantor, J. M. (2012). Reply to Italiano's (2012) comment on Cantor (2011) [Letter to the Editor]. *Archives of Sexual Behavior, 41*, 1081–1082. doi: 10.1007/s10508-012-0011-y
7. Cantor, J. M. (2012). The errors of Karen Franklin's *Pretextuality* [Commentary]. *International Journal of Forensic Mental Health, 11*, 59–62. doi: 10.1080/14999013.2012.672945
8. Cantor, J. M., & Blanchard, R. (2012). White matter volumes in pedophiles, hebephiles, and teleiophiles [Letter to the Editor]. *Archives of Sexual Behavior, 41*, 749–752. doi: 10.1007/s10508-012-9954-2
9. Cantor, J. M. (2011). New MRI studies support the Blanchard typology of male-to-female transsexualism [Letter to the Editor]. *Archives of Sexual Behavior, 40*, 863–864. doi: 10.1007/s10508-011-9805-6
10. Zucker, K. J., Bradley, S. J., Own-Anderson, A., Kibblewhite, S. J., & Cantor, J. M. (2008). Is gender identity disorder in adolescents coming out of the closet? *Journal of Sex and Marital Therapy, 34*, 287–290.
11. Cantor, J. M. (2003, Summer). Review of the book *The Man Who Would Be Queen* by J. Michael Bailey. *Newsletter of Division 44 of the American Psychological Association, 19*(2), 6.
12. Cantor, J. M. (2003, Spring). What are the hot topics in LGBT research in psychology? *Newsletter of Division 44 of the American Psychological Association, 19*(1), 21–24.
13. Cantor, J. M. (2002, Fall). Male homosexuality, science, and pedophilia. *Newsletter of Division 44 of the American Psychological Association, 18*(3), 5–8.
14. Cantor, J. M. (2000). Review of the book *Sexual Addiction: An Integrated Approach*. *Journal of Sex and Marital Therapy, 26*, 107–109.

EDITORIALS

1. Cantor, J. M. (2012). Editorial. *Sexual Abuse: A Journal of Research and Treatment, 24*.

2. Cantor, J. M. (2011). Editorial note. *Sexual Abuse: A Journal of Research and Treatment*, 23, 414.
3. Barbaree, H. E., & Cantor, J. M. (2010). Performance indicators for *Sexual Abuse: A Journal of Research and Treatment* (SAJRT) [Editorial]. *Sexual Abuse: A Journal of Research and Treatment*, 22, 371–373.
4. Barbaree, H. E., & Cantor, J. M. (2009). *Sexual Abuse: A Journal of Research and Treatment* performance indicators for 2007 [Editorial]. *Sexual Abuse: A Journal of Research and Treatment*, 21, 3–5.
5. Zucker, K. J., & Cantor, J. M. (2009). Cruising: Impact factor data [Editorial]. *Archives of Sexual Research*, 38, 878–882.
6. Barbaree, H. E., & Cantor, J. M. (2008). Performance indicators for *Sexual Abuse: A Journal of Research and Treatment* [Editorial]. *Sexual Abuse: A Journal of Research and Treatment*, 20, 3–4.
7. Zucker, K. J., & Cantor, J. M. (2008). The *Archives* in the era of online first ahead of print [Editorial]. *Archives of Sexual Behavior*, 37, 512–516.
8. Zucker, K. J., & Cantor, J. M. (2006). The impact factor: The *Archives* breaks from the pack [Editorial]. *Archives of Sexual Behavior*, 35, 7–9.
9. Zucker, K. J., & Cantor, J. M. (2005). The impact factor: “Goin’ up” [Editorial]. *Archives of Sexual Behavior*, 34, 7–9.
10. Zucker, K., & Cantor, J. M. (2003). The numbers game: The impact factor and all that jazz [Editorial]. *Archives of Sexual Behavior*, 32, 3–5.

FUNDING HISTORY

- Principal Investigators: Doug VanderLaan, Meng-Chuan Lai
Co-Investigators: James M. Cantor, Megha Mallar Chakravarty, Nancy Lobaugh, M. Palmert, M. Skorska
Title: *Brain function and connectomics following sex hormone treatment in adolescents experience gender dysphoria*
Agency: Canadian Institutes of Health Research (CIHR), Behavioural Sciences-B-2
Funds: \$650,250 / 5 years (July, 2018)
- Principal Investigator: Michael C. Seto
Co-Investigators: Martin Lalumière , James M. Cantor
Title: *Are connectivity differences unique to pedophilia?*
Agency: University Medical Research Fund, Royal Ottawa Hospital
Funds: \$50,000 / 1 year (January, 2018)
- Principal Investigator: Lori Brotto
Co-Investigators: Anthony Bogaert, James M. Cantor, Gerulf Rieger
Title: *Investigations into the neural underpinnings and biological correlates of asexuality*
Agency: Natural Sciences and Engineering Research Council (NSERC), Discovery Grants Program
Funds: \$195,000 / 5 years (April, 2017)
- Principal Investigator: Doug VanderLaan
Co-Investigators: Jerald Bain, James M. Cantor, Megha Mallar Chakravarty, Sofia Chavez, Nancy Lobaugh, and Kenneth J. Zucker
Title: *Effects of sex hormone treatment on brain development: A magnetic resonance imaging study of adolescents with gender dysphoria*
Agency: Canadian Institutes of Health Research (CIHR), Transitional Open Grant Program
Funds: \$952,955 / 5 years (September, 2015)
- Principal Investigator: James M. Cantor
Co-Investigators: Howard E. Barbaree, Ray Blanchard, Robert Dickey, Todd A. Girard, Phillip E. Klassen, and David J. Mikulis
Title: *Neuroanatomic features specific to pedophilia*
Agency: Canadian Institutes of Health Research (CIHR)
Funds: \$1,071,920 / 5 years (October, 2008)
- Principal Investigator: James M. Cantor
Title: *A preliminary study of fMRI as a diagnostic test of pedophilia*
Agency: Dean of Medicine New Faculty Grant Competition, Univ. of Toronto
Funds: \$10,000 (July, 2008)

Principal Investigator: James M. Cantor
Co-Investigator: Ray Blanchard
Title: *Morphological and neuropsychological correlates of pedophilia*
Agency: Canadian Institutes of Health Research (CIHR)
Funds: \$196,902 / 3 years (April, 2006)

KEYNOTE AND INVITED ADDRESSES

1. Cantor, J. M. (2021, September 28). *No topic too tough for this expert panel: A year in review*. Plenary Session for the 40th Annual Research and Treatment Conference, Association for the Treatment of Sexual Abusers.
2. Cantor, J. M. (2019, May 1). *Introduction and Q&A for 'I, Pedophile.'* StopSO 2nd Annual Conference, London, UK.
3. Cantor, J. M. (2018, August 29). *Neurobiology of pedophilia or paraphilia? Towards a 'Grand Unified Theory' of sexual interests*. Keynote address to the International Association for the Treatment of Sexual Offenders, Vilnius, Lithuania.
4. Cantor, J. M. (2018, August 29). *Pedophilia and the brain: Three questions asked and answered*. Preconference training presented to the International Association for the Treatment of Sexual Offenders, Vilnius, Lithuania.
5. Cantor, J. M. (2018, April 13). *The responses to I, Pedophile from We, the people*. Keynote address to the Minnesota Association for the Treatment of Sexual Abusers, Minneapolis, Minnesota.
6. Cantor, J. M. (2018, April 11). *Studying atypical sexualities: From vanilla to I, Pedophile*. Full day workshop at the Minnesota Association for the Treatment of Sexual Abusers, Minneapolis, Minnesota.
7. Cantor, J. M. (2018, January 20). *How much sex is enough for a happy life?* Invited lecture to the University of Toronto Division of Urology Men's Health Summit, Toronto, Canada.
8. Cantor, J. M. (2017, November 2). *Pedophilia as a phenomenon of the brain: Update of evidence and the public response*. Invited presentation to the 7th annual SBC education event, Centre for Addiction and Mental Health, Toronto, Canada.
9. Cantor, J. M. (2017, June 9). *Pedophilia being in the brain: The evidence and the public's reaction*. Invited presentation to *SEXposium at the ROM: The science of love and sex*, Toronto, Canada.
10. Cantor, J. M., & Campea, M. (2017, April 20). *"I, Pedophile" showing and discussion*. Invited presentation to the 42nd annual meeting of the Society for Sex Therapy and Research, Montréal, Canada.
11. Cantor, J. M. (2017, March 1). *Functional and structural neuroimaging of pedophilia: Consistencies across methods and modalities*. Invited lecture to the Brain Imaging Centre, Royal Ottawa Hospital, Ottawa, Canada.
12. Cantor, J. M. (2017, January 26). *Pedophilia being in the brain: The evidence and the public reaction*. Inaugural keynote address to the University of Toronto Sexuality Interest Network, Toronto, Ontario, Canada.
13. Cantor, J. M. (2016, October 14). *Discussion of CBC's "I, Pedophile."* Office of the Children's Lawyer Educational Session, Toronto, Ontario, Canada.
14. Cantor, J. M. (2016, September 15). *Evaluating the risk to reoffend: What we know and what we don't*. Invited lecture to the Association of Ontario Judges, Ontario Court of Justice Annual Family Law Program, Blue Mountains, Ontario, Canada. [Private link only: <https://vimeo.com/239131108/3387c80652>]
15. Cantor, J. M. (2016, April 8). *Pedophilia and the brain: Conclusions from the second generation of research*. Invited lecture at the 10th annual Risk and Recovery Forensic Conference, Hamilton, Ontario.

16. Cantor, J. M. (2016, April 7). *Hypersexuality without the hyperbole*. Keynote address to the 10th annual Risk and Recovery Forensic Conference, Hamilton, Ontario.
17. Cantor, J. M. (2015, November). *No one asks to be sexually attracted to children: Living in Daniel's World*. Grand Rounds, Centre for Addiction and Mental Health. Toronto, Canada.
18. Cantor, J. M. (2015, August). *Hypersexuality: Getting past whether "it" is or "it" isn't*. Invited address at the 41st annual meeting of the International Academy of Sex Research. Toronto, Canada.
19. Cantor, J. M. (2015, July). *A unified theory of typical and atypical sexual interest in men: Paraphilia, hypersexuality, asexuality, and vanilla as outcomes of a single, dual opponent process*. Invited presentation to the 2015 Puzzles of Sexual Orientation conference, Lethbridge, AL, Canada.
20. Cantor, J. M. (2015, June). *Hypersexuality*. Keynote Address to the Ontario Problem Gambling Provincial Forum. Toronto, Canada.
21. Cantor, J. M. (2015, May). *Assessment of pedophilia: Past, present, future*. Keynote Address to the International Symposium on Neural Mechanisms Underlying Pedophilia and Child Sexual Abuse (NeMUP). Berlin, Germany.
22. Cantor, J. M. (2015, March). *Prevention of sexual abuse by tackling the biggest stigma of them all: Making sex therapy available to pedophiles*. Keynote address to the 40th annual meeting of the Society for Sex Therapy and Research, Boston, MA.
23. Cantor, J. M. (2015, March). *Pedophilia: Predisposition or perversion?* Panel discussion at Columbia University School of Journalism. New York, NY.
24. Cantor, J. M. (2015, February). *Hypersexuality*. Research Day Grand Rounds presentation to Ontario Shores Centre for Mental Health Sciences, Whitby, Ontario, Canada.
25. Cantor, J. M. (2015, January). *Brain research and pedophilia: What it means for assessment, research, and policy*. Keynote address to the inaugural meeting of the Netherlands Association for the Treatment of Sexual Abusers, Utrecht, Netherlands.
26. Cantor, J. M. (2014, December). *Understanding pedophilia and the brain: Implications for safety and society*. Keynote address for The Jewish Community Confronts Violence and Abuse: Crisis Centre for Religious Women, Jerusalem, Israel.
27. Cantor, J. M. (2014, October). *Understanding pedophilia & the brain*. Invited full-day workshop for the Sex Offender Assessment Board of Pennsylvania, Harrisburg, PA.
28. Cantor, J. M. (2014, September). *Understanding neuroimaging of pedophilia: Current status and implications*. Invited lecture presented to the Mental Health and Addiction Rounds, St. Joseph's Healthcare, Hamilton, Ontario, Canada.
29. Cantor, J. M. (2014, June). *An evening with Dr. James Cantor*. Invited lecture presented to the Ontario Medical Association, District 11 Doctors' Lounge Program, Toronto, Ontario, Canada.
30. Cantor, J. M. (2014, April). *Pedophilia and the brain*. Invited lecture presented to the University of Toronto Medical Students lunchtime lecture. Toronto, Ontario, Canada.
31. Cantor, J. M. (2014, February). *Pedophilia and the brain: Recap and update*. Workshop presented at the 2014 annual meeting of the Washington State Association for the Treatment of Sexual Abusers, Cle Elum, WA.
32. Cantor, J. M., Lafaille, S., Hannah, J., Kucyi, A., Soh, D., Girard, T. A., & Mikulis, D. M. (2014, February). *Functional connectivity in pedophilia*. Neuropsychiatry Rounds, Toronto Western Hospital, Toronto, Ontario, Canada.

33. Cantor, J. M. (2013, November). *Understanding pedophilia and the brain: The basics, the current status, and their implications*. Invited lecture to the Forensic Psychology Research Centre, Carleton University, Ottawa, Canada.
34. Cantor, J. M. (2013, November). *Mistaking puberty, mistaking hebephilia*. Keynote address presented to the 32nd annual meeting of the Association for the Treatment of Sexual Abusers, Chicago, IL.
35. Cantor, J. M. (2013, October). *Understanding pedophilia and the brain: A recap and update*. Invited workshop presented at the 32nd annual meeting of the Association for the Treatment of Sexual Abusers, Chicago, IL.
36. Cantor, J. M. (2013, October). *Compulsive-hyper-sex-addiction: I don't care what we all it, what can we do?* Invited address presented to the Board of Examiners of Sex Therapists and Counselors of Ontario, Toronto, Ontario, Canada.
37. Cantor, J. M. (2013, September). *Neuroimaging of pedophilia: Current status and implications*. McGill University Health Centre, Department of Psychiatry Grand Rounds presentation, Montréal, Québec, Canada.
38. Cantor, J. M. (2013, April). *Understanding pedophilia and the brain*. Invited workshop presented at the 2013 meeting of the Minnesota Association for the Treatment of Sexual Abusers, Minneapolis, MN.
39. Cantor, J. M. (2013, April). *The neurobiology of pedophilia and its implications for assessment, treatment, and public policy*. Invited lecture at the 38th annual meeting of the Society for Sex Therapy and Research, Baltimore, MD.
40. Cantor, J. M. (2013, April). *Sex offenders: Relating research to policy*. Invited roundtable presentation at the annual meeting of the Academy of Criminal Justice Sciences, Dallas, TX.
41. Cantor, J. M. (2013, March). *Pedophilia and brain research: From the basics to the state-of-the-art*. Invited workshop presented to the annual meeting of the Forensic Mental Health Association of California, Monterey, CA.
42. Cantor, J. M. (2013, January). *Pedophilia and child molestation*. Invited lecture presented to the Canadian Border Services Agency, Toronto, Ontario, Canada.
43. Cantor, J. M. (2012, November). *Understanding pedophilia and sexual offenders against children: Neuroimaging and its implications for public safety*. Invited guest lecture to University of New Mexico School of Medicine Health Sciences Center, Albuquerque, NM.
44. Cantor, J. M. (2012, November). *Pedophilia and brain research*. Invited guest lecture to the annual meeting of the Circles of Support and Accountability, Toronto, Ontario, Canada.
45. Cantor, J. M. (2012, January). *Current findings on pedophilia brain research*. Invited workshop at the San Diego International Conference on Child and Family Maltreatment, San Diego, CA.
46. Cantor, J. M. (2012, January). *Pedophilia and the risk to re-offend*. Invited lecture to the Ontario Court of Justice Judicial Development Institute, Toronto, Ontario, Canada.
47. Cantor, J. M. (2011, November). *Pedophilia and the brain: What it means for assessment, treatment, and policy*. Plenary Lecture presented at the Association for the Treatment of Sexual Abusers, Toronto, Ontario, Canada.
48. Cantor, J. M. (2011, July). *Towards understanding contradictory findings in the neuroimaging of pedophilic men*. Keynote address to 7th annual conference on Research in Forensic Psychiatry, Regensburg, Germany.

49. Cantor, J. M. (2011, March). *Understanding sexual offending and the brain: Brain basics to the state of the art*. Workshop presented at the winter conference of the Oregon Association for the Treatment of Sexual Abusers, Oregon City, OR.
50. Cantor, J. M. (2010, October). *Manuscript publishing for students*. Workshop presented at the 29th annual meeting of the Association for the Treatment of Sexual Abusers, Phoenix, AZ.
51. Cantor, J. M. (2010, August). *Is sexual orientation a paraphilia?* Invited lecture at the International Behavioral Development Symposium, Lethbridge, Alberta, Canada.
52. Cantor, J. M. (2010, March). *Understanding sexual offending and the brain: From the basics to the state of the art*. Workshop presented at the annual meeting of the Washington State Association for the Treatment of Sexual Abusers, Blaine, WA.
53. Cantor, J. M. (2009, January). *Brain structure and function of pedophilia men*. Neuropsychiatry Rounds, Toronto Western Hospital, Toronto, Ontario.
54. Cantor, J. M. (2008, April). *Is pedophilia caused by brain dysfunction?* Invited address to the University-wide Science Day Lecture Series, SUNY Oswego, Oswego, NY.
55. Cantor, J. M., Kabani, N., Christensen, B. K., Zipursky, R. B., Barbaree, H. E., Dickey, R., Klassen, P. E., Mikulis, D. J., Kuban, M. E., Blak, T., Richards, B. A., Hanratty, M. K., & Blanchard, R. (2006, September). *MRIs of pedophilic men*. Invited presentation at the 25th annual meeting of the Association for the Treatment of Sexual Abusers, Chicago.
56. Cantor, J. M., Blanchard, R., & Christensen, B. K. (2003, March). *Findings in and implications of neuropsychology and epidemiology of pedophilia*. Invited lecture at the 28th annual meeting of the Society for Sex Therapy and Research, Miami.
57. Cantor, J. M., Christensen, B. K., Klassen, P. E., Dickey, R., & Blanchard, R. (2001, July). *Neuropsychological functioning in pedophiles*. Invited lecture presented at the 27th annual meeting of the International Academy of Sex Research, Bromont, Canada.
58. Cantor, J. M., Blanchard, R., Christensen, B., Klassen, P., & Dickey, R. (2001, February). *First glance at IQ, memory functioning and handedness in sex offenders*. Lecture presented at the Forensic Lecture Series, Centre for Addiction and Mental Health, Toronto, Ontario, Canada.
59. Cantor, J. M. (1999, November). *Reversal of SSRI-induced male sexual dysfunction: Suggestions from an animal model*. Grand Rounds presentation at the Allan Memorial Institute, Royal Victoria Hospital, Montréal, Canada.

PAPER PRESENTATIONS AND SYMPOSIA

1. Cantor, J. M. (2020, April). "I'd rather have a trans kid than a dead kid": Critical assessment of reported rates of suicidality in trans kids. *Paper presented at the annual meeting of the Society for the Sex Therapy and Research*. Online in lieu of in person meeting.
2. Stephens, S., Lalumière, M., Seto, M. C., & Cantor, J. M. (2017, October). *The relationship between sexual responsiveness and sexual exclusivity in phallometric profiles*. Paper presented at the annual meeting of the Canadian Sex Research Forum, Fredericton, New Brunswick, Canada.
3. Stephens, S., Cantor, J. M., & Seto, M. C. (2017, March). *Can the SSPI-2 detect hebephilic sexual interest?* Paper presented at the annual meeting of the American-Psychology Law Society Annual Meeting, Seattle, WA.
4. Stephens, S., Seto, M. C., Goodwill, A. M., & Cantor, J. M. (2015, October). *Victim choice polymorphism and recidivism*. Symposium Presentation. Paper presented at the 34th annual meeting of the Association for the Treatment of Sexual Abusers, Montréal, Canada.
5. McPhail, I. V., Hermann, C. A., Fernane, S. Fernandez, Y., Cantor, J. M., & Nunes, K. L. (2014, October). *Sexual deviance in sexual offenders against children: A meta-analytic review of phallometric research*. Paper presented at the 33rd annual meeting of the Association for the Treatment of Sexual Abusers, San Diego, CA.
6. Stephens, S., Seto, M. C., Cantor, J. M., & Goodwill, A. M. (2014, October). *Is hebephilic sexual interest a criminogenic need?: A large scale recidivism study*. Paper presented at the 33rd annual meeting of the Association for the Treatment of Sexual Abusers, San Diego, CA.
7. Stephens, S., Seto, M. C., Cantor, J. M., & Lalumière, M. (2014, October). *Development and validation of the Revised Screening Scale for Pedophilic Interests (SSPI-2)*. Paper presented at the 33rd annual meeting of the Association for the Treatment of Sexual Abusers, San Diego, CA.
8. Cantor, J. M., Lafaille, S., Hannah, J., Kucyi, A., Soh, D., Girard, T. A., & Mikulis, D. M. (2014, September). *Pedophilia and the brain: White matter differences detected with DTI*. Paper presented at the 13th annual meeting of the International Association for the Treatment of Sexual Abusers, Porto, Portugal.
9. Stephens, S., Seto, M., Cantor, J. M., Goodwill, A. M., & Kuban, M. (2014, March). *The role of hebephilic sexual interests in sexual victim choice*. Paper presented at the annual meeting of the American Psychology and Law Society, New Orleans, LA.
10. McPhail, I. V., Fernane, S. A., Hermann, C. A., Fernandez, Y. M., Nunes, K. L., & Cantor, J. M. (2013, November). *Sexual deviance and sexual recidivism in sexual offenders against children: A meta-analysis*. Paper presented at the 32nd annual meeting of the Association for the Treatment of Sexual Abusers, Chicago, IL.
11. Cantor, J. M. (2013, September). *Pedophilia and the brain: Current MRI research and its implications*. Paper presented at the 21st annual World Congress for Sexual Health, Porto Alegre, Brazil. [Featured among Best Abstracts, top 10 of 500.]
12. Cantor, J. M. (Chair). (2012, March). *Innovations in sex research*. Symposium conducted at the 37th annual meeting of the Society for Sex Therapy and Research, Chicago.
13. Cantor, J. M., & Blanchard, R. (2011, August). fMRI versus phallometry in the diagnosis of pedophilia and hebephilia. In J. M. Cantor (Chair), *Neuroimaging of men's object*

- preferences*. Symposium presented at the 37th annual meeting of the International Academy of Sex Research, Los Angeles, USA.
14. Cantor, J. M. (Chair). (2011, August). *Neuroimaging of men's object preferences*. Symposium conducted at the 37th annual meeting of the International Academy of Sex Research, Los Angeles.
 15. Cantor, J. M. (2010, October). A meta-analysis of neuroimaging studies of male sexual arousal. In S. Stolerú (Chair), *Brain processing of sexual stimuli in pedophilia: An application of functional neuroimaging*. Symposium presented at the 29th annual meeting of the Association for the Treatment of Sexual Abusers, Phoenix, AZ.
 16. Chivers, M. L., Seto, M. C., Cantor, J. C., Grimbos, T., & Roy, C. (April, 2010). *Psychophysiological assessment of sexual activity preferences in women*. Paper presented at the 35th annual meeting of the Society for Sex Therapy and Research, Boston, USA.
 17. Cantor, J. M., Girard, T. A., & Lovett-Barron, M. (2008, November). *The brain regions that respond to erotica: Sexual neuroscience for dummies*. Paper presented at the 51st annual meeting of the Society for the Scientific Study of Sexuality, San Juan, Puerto Rico.
 18. Barbaree, H., Langton, C., Blanchard, R., & Cantor, J. M. (2007, October). *The role of age-at-release in the evaluation of recidivism risk of sexual offenders*. Paper presented at the 26th annual meeting of the Association for the Treatment of Sexual Abusers, San Diego.
 19. Cantor, J. M., Kabani, N., Christensen, B. K., Zipursky, R. B., Barbaree, H. E., Dickey, R., Klassen, P. E., Mikulis, D. J., Kuban, M. E., Blak, T., Richards, B. A., Hanratty, M. K., & Blanchard, R. (2006, July). *Pedophilia and brain morphology*. Abstract and paper presented at the 32nd annual meeting of the International Academy of Sex Research, Amsterdam, Netherlands.
 20. Seto, M. C., Cantor, J. M., & Blanchard, R. (2006, March). *Child pornography offending is a diagnostic indicator of pedophilia*. Paper presented at the 2006 annual meeting of the American Psychology-Law Society Conference, St. Petersburg, Florida.
 21. Blanchard, R., Cantor, J. M., Bogaert, A. F., Breedlove, S. M., & Ellis, L. (2005, August). *Interaction of fraternal birth order and handedness in the development of male homosexuality*. Abstract and paper presented at the International Behavioral Development Symposium, Minot, North Dakota.
 22. Cantor, J. M., & Blanchard, R. (2005, July). *Quantitative reanalysis of aggregate data on IQ in sexual offenders*. Abstract and poster presented at the 31st annual meeting of the International Academy of Sex Research, Ottawa, Canada.
 23. Cantor, J. M. (2003, August). *Sex reassignment on demand: The clinician's dilemma*. Paper presented at the 111th annual meeting of the American Psychological Association, Toronto, Canada.
 24. Cantor, J. M. (2003, June). *Meta-analysis of VIQ-PIQ differences in male sex offenders*. Paper presented at the Harvey Stancer Research Day, Toronto, Ontario, Canada.
 25. Cantor, J. M. (2002, August). *Gender role in autogynephilic transsexuals: The more things change...* Paper presented at the 110th annual meeting of the American Psychological Association, Chicago.

26. Cantor, J. M., Christensen, B. K., Klassen, P. E., Dickey, R., & Blanchard, R. (2001, June). *IQ, memory functioning, and handedness in male sex offenders*. Paper presented at the Harvey Stancer Research Day, Toronto, Ontario, Canada.
27. Cantor, J. M. (1998, August). *Convention orientation for lesbian, gay, and bisexual students*. Papers presented at the 106th annual meeting of the American Psychological Association.
28. Cantor, J. M. (1997, August). *Discussion hour for lesbian, gay, and bisexual students*. Presented at the 105th annual meeting of the American Psychological Association.
29. Cantor, J. M. (1997, August). *Convention orientation for lesbian, gay, and bisexual students*. Paper presented at the 105th annual meeting of the American Psychological Association.
30. Cantor, J. M. (1996, August). *Discussion hour for lesbian, gay, and bisexual students*. Presented at the 104th annual meeting of the American Psychological Association.
31. Cantor, J. M. (1996, August). *Symposium: Question of inclusion: Lesbian and gay psychologists and accreditation*. Paper presented at the 104th annual meeting of the American Psychological Association, Toronto.
32. Cantor, J. M. (1996, August). *Convention orientation for lesbian, gay, and bisexual students*. Papers presented at the 104th annual meeting of the American Psychological Association.
33. Cantor, J. M. (1995, August). *Discussion hour for lesbian, gay, and bisexual students*. Presented at the 103rd annual meeting of the American Psychological Association.
34. Cantor, J. M. (1995, August). *Convention orientation for lesbian, gay, and bisexual students*. Papers presented at the 103rd annual meeting of the American Psychological Association.
35. Cantor, J. M. (1994, August). *Discussion hour for lesbian, gay, and bisexual students*. Presented at the 102nd annual meeting of the American Psychological Association.
36. Cantor, J. M. (1994, August). *Convention orientation for lesbian, gay, and bisexual students*. Papers presented at the 102nd annual meeting of the American Psychological Association.
37. Cantor, J. M., & Pilkington, N. W. (1992, August). *Homophobia in psychology programs: A survey of graduate students*. Paper presented at the Centennial Convention of the American Psychological Association, Washington, DC. (ERIC Document Reproduction Service No. ED 351 618)
38. Cantor, J. M. (1991, August). *Being gay and being a graduate student: Double the memberships, four times the problems*. Paper presented at the 99th annual meeting of the American Psychological Association, San Francisco.

POSTER PRESENTATIONS

1. Klein, L., Stephens, S., Goodwill, A. M., Cantor, J. M., & Seto, M. C. (2015, October). *The psychological propensities of risk in undetected sexual offenders*. Poster presented at the 34th annual meeting of the Association for the Treatment of Sexual Abusers, Montréal, Canada.
2. Pullman, L. E., Stephens, S., Seto, M. C., Goodwill, A. M., & Cantor, J. M. (2015, October). *Why are incest offenders less likely to recidivate?* Poster presented at the 34th annual meeting of the Association for the Treatment of Sexual Abusers, Montréal, Canada.
3. Seto, M. C., Stephens, S. M., Cantor, J. M., Lalumiere, M. L., Sandler, J. C., & Freeman, N. A. (2015, August). *The development and validation of the Revised Screening Scale for Pedophilic Interests (SSPI-2)*. Poster presentation at the 41st annual meeting of the International Academy of Sex Research. Toronto, Canada.
4. Soh, D. W., & Cantor, J. M. (2015, August). *A peek inside a furry convention*. Poster presentation at the 41st annual meeting of the International Academy of Sex Research. Toronto, Canada.
5. VanderLaan, D. P., Lobaugh, N. J., Chakravarty, M. M., Patel, R., Chavez, S. Stojanovski, S. O., Takagi, A., Hughes, S. K., Wasserman, L., Bain, J., Cantor, J. M., & Zucker, K. J. (2015, August). *The neurohormonal hypothesis of gender dysphoria: Preliminary evidence of cortical surface area differences in adolescent natal females*. Poster presentation at the 31st annual meeting of the International Academy of Sex Research. Toronto, Canada.
6. Cantor, J. M., Lafaille, S. J., Moayedi, M., Mikulis, D. M., & Girard, T. A. (2015, June). *Diffusion tensor imaging (DTI) of the brain in pedohebephilic men: Preliminary analyses*. Harvey Stancer Research Day, Toronto, Ontario Canada.
7. Newman, J. E., Stephens, S., Seto, M. C., & Cantor, J. M. (2014, October). *The validity of the Static-99 in sexual offenders with low intellectual abilities*. Poster presentation at the 33rd annual meeting of the Association for the Treatment of Sexual Abusers, San Diego, CA.
8. Lykins, A. D., Walton, M. T., & Cantor, J. M. (2014, June). *An online assessment of personality, psychological, and sexuality trait variables associated with self-reported hypersexual behavior*. Poster presentation at the 30th annual meeting of the International Academy of Sex Research, Dubrovnik, Croatia.
9. Stephens, S., Seto, M. C., Cantor, J. M., Goodwill, A. M., & Kuban, M. (2013, November). *The utility of phallometry in the assessment of hebephilia*. Poster presented at the 32nd annual meeting of the Association for the Treatment of Sexual Abusers, Chicago.
10. Stephens, S., Seto, M. C., Cantor, J. M., Goodwill, A. M., & Kuban, M. (2013, October). *The role of hebephilic sexual interests in sexual victim choice*. Poster presented at the 32nd annual meeting of the Association for the Treatment of Sexual Abusers, Chicago.
11. Fazio, R. L., & Cantor, J. M. (2013, October). *Analysis of the Fazio Laterality Inventory (FLI) in a population with established atypical handedness*. Poster presented at the 33rd annual meeting of the National Academy of Neuropsychology, San Diego.
12. Lafaille, S., Hannah, J., Soh, D., Kucyi, A., Girard, T. A., Mikulis, D. M., & Cantor, J. M. (2013, August). *Investigating resting state networks in pedohebephiles*. Poster presented at the 29th annual meeting of the International Academy of Sex Research, Chicago.

13. McPhail, I. V., Lykins, A. D., Robinson, J. J., LeBlanc, S., & Cantor, J. M. (2013, August). *Effects of prescription medication on volumetric phallometry output*. Poster presented at the 29th annual meeting of the International Academy of Sex Research, Chicago.
14. Murray, M. E., Dyshniku, F., Fazio, R. L., & Cantor, J. M. (2013, August). *Minor physical anomalies as a window into the prenatal origins of pedophilia*. Poster presented at the 29th annual meeting of the International Academy of Sex Research, Chicago.
15. Sutton, K. S., Stephens, S., Dyshniku, F., Tulloch, T., & Cantor, J. M. (2013, August). *Pilot group treatment for "procrasturbation."* Poster presented at 39th annual meeting of the International Academy of Sex Research, Chicago.
16. Sutton, K. S., Pytyck, J., Stratton, N., Sylva, D., Kolla, N., & Cantor, J. M. (2013, August). *Client characteristics by type of hypersexuality referral: A quantitative chart review*. Poster presented at the 39th annual meeting of the International Academy of Sex Research, Chicago.
17. Fazio, R. L., & Cantor, J. M. (2013, June). *A replication and extension of the psychometric properties of the Digit Vigilance Test*. Poster presented at the 11th annual meeting of the American Academy of Clinical Neuropsychology, Chicago.
18. Lafaille, S., Moayed, M., Mikulis, D. M., Girard, T. A., Kuban, M., Blak, T., & Cantor, J. M. (2012, July). *Diffusion Tensor Imaging (DTI) of the brain in pedohebephilic men: Preliminary analyses*. Poster presented at the 38th annual meeting of the International Academy of Sex Research, Lisbon, Portugal.
19. Lykins, A. D., Cantor, J. M., Kuban, M. E., Blak, T., Dickey, R., Klassen, P. E., & Blanchard, R. (2010, July). *Sexual arousal to female children in gynephilic men*. Poster presented at the 38th annual meeting of the International Academy of Sex Research, Prague, Czech Republic.
20. Cantor, J. M., Girard, T. A., Lovett-Barron, M., & Blak, T. (2008, July). *Brain regions responding to visual sexual stimuli: Meta-analysis of PET and fMRI studies*. Abstract and poster presented at the 34th annual meeting of the International Academy of Sex Research, Leuven, Belgium.
21. Lykins, A. D., Blanchard, R., Cantor, J. M., Blak, T., & Kuban, M. E. (2008, July). *Diagnosing sexual attraction to children: Considerations for DSM-V*. Poster presented at the 34th annual meeting of the International Academy of Sex Research, Leuven, Belgium.
22. Cantor, J. M., Blak, T., Kuban, M. E., Klassen, P. E., Dickey, R. and Blanchard, R. (2007, October). *Physical height in pedophilia and hebephilia*. Poster presented at the 26th annual meeting of the Association for the Treatment of Sexual Abusers, San Diego.
23. Cantor, J. M., Blak, T., Kuban, M. E., Klassen, P. E., Dickey, R. and Blanchard, R. (2007, August). *Physical height in pedophilia and hebephilia*. Abstract and poster presented at the 33rd annual meeting of the International Academy of Sex Research, Vancouver, Canada.
24. Puts, D. A., Blanchard, R., Cardenas, R., Cantor, J., Jordan, C. L., & Breedlove, S. M. (2007, August). *Earlier puberty predicts superior performance on male-biased visuospatial tasks in men but not women*. Abstract and poster presented at the 33rd annual meeting of the International Academy of Sex Research, Vancouver, Canada.
25. Seto, M. C., Cantor, J. M., & Blanchard, R. (2005, November). *Possession of child pornography is a diagnostic indicator of pedophilia*. Poster presented at the 24th annual meeting of the Association for the Treatment of Sexual Abusers, New Orleans.

26. Blanchard, R., Cantor, J. M., Bogaert, A. F., Breedlove, S. M., & Ellis, L. (2005, July). *Interaction of fraternal birth order and handedness in the development of male homosexuality*. Abstract and poster presented at the 31st annual meeting of the International Academy of Sex Research, Ottawa, Canada.
27. Cantor, J. M., & Blanchard, R. (2003, July). *The reported VIQ–PIQ differences in male sex offenders are artifactual?* Abstract and poster presented at the 29th annual meeting of the International Academy of Sex Research, Bloomington, Indiana.
28. Christensen, B. K., Cantor, J. M., Millikin, C., & Blanchard, R. (2002, February). *Factor analysis of two brief memory tests: Preliminary evidence for modality-specific measurement*. Poster presented at the 30th annual meeting of the International Neuropsychological Society, Toronto, Ontario, Canada.
29. Cantor, J. M., Blanchard, R., Paterson, A., Bogaert, A. (2000, June). *How many gay men owe their sexual orientation to fraternal birth order?* Abstract and poster presented at the International Behavioral Development Symposium, Minot, North Dakota.
30. Cantor, J. M., Binik, Y., & Pfaus, J. G. (1996, November). *Fluoxetine inhibition of male rat sexual behavior: Reversal by oxytocin*. Poster presented at the 26th annual meeting of the Society for Neurosciences, Washington, DC.
31. Cantor, J. M., Binik, Y., & Pfaus, J. G. (1996, June). *An animal model of fluoxetine-induced sexual dysfunction: Dose dependence and time course*. Poster presented at the 28th annual Conference on Reproductive Behavior, Montréal, Canada.
32. Cantor, J. M., O'Connor, M. G., Kaplan, B., & Cermak, L. S. (1993, June). *Transient events test of retrograde memory: Performance of amnesic and unimpaired populations*. Poster presented at the 2nd annual science symposium of the Massachusetts Neuropsychological Society, Cambridge, MA.

EDITORIAL AND PEER-REVIEWING ACTIVITIES

Editor-in-Chief

Sexual Abuse: A Journal of Research and Treatment

Jan., 2010–Dec., 2014

Editorial Board Memberships

Journal of Sexual Aggression

Jan., 2010–Dec., 2021

Journal of Sex Research, The

Jan., 2008–Aug., 2020

Sexual Abuse: A Journal of Research and Treatment

Jan., 2006–Dec., 2019

Archives of Sexual Behavior

Jan., 2004–Present

The Clinical Psychologist

Jan., 2004–Dec., 2005

Ad hoc Journal Reviewer Activity

American Journal of Psychiatry

Annual Review of Sex Research

Archives of General Psychiatry

Assessment

Biological Psychiatry

BMC Psychiatry

Brain Structure and Function

British Journal of Psychiatry

British Medical Journal

Canadian Journal of Behavioural Science

Canadian Journal of Psychiatry

Cerebral Cortex

Clinical Case Studies

Comprehensive Psychiatry

Developmental Psychology

European Psychologist

Frontiers in Human Neuroscience

Human Brain Mapping

International Journal of Epidemiology

International Journal of Impotence Research

International Journal of Sexual Health

International Journal of Transgenderism

Journal of Abnormal Psychology

Journal of Clinical Psychology

Journal of Consulting and Clinical Psychology

Journal of Forensic Psychology Practice

Journal for the Scientific Study of Religion

Journal of Sexual Aggression

Journal of Sexual Medicine

Journal of Psychiatric Research

Nature Neuroscience

Neurobiology Reviews

Neuroscience & Biobehavioral Reviews

Neuroscience Letters

*Proceedings of the Royal Society B
(Biological Sciences)*

Psychological Assessment

Psychological Medicine

Psychological Science

Psychology of Men & Masculinity

Sex Roles

Sexual and Marital Therapy

Sexual and Relationship Therapy

Sexuality & Culture

Sexuality Research and Social Policy

The Clinical Psychologist

Traumatology

World Journal of Biological Psychiatry

GRANT REVIEW PANELS

- 2017–2021 Member, College of Reviewers, *Canadian Institutes of Health Research*, Canada.
- 2017 Committee Member, Peer Review Committee—Doctoral Research Awards A. *Canadian Institutes of Health Research*, Canada.
- 2017 Member, International Review Board, Research collaborations on behavioural disorders related to violence, neglect, maltreatment and abuse in childhood and adolescence. *Bundesministerium für Bildung und Forschung [Ministry of Education and Research]*, Germany.
- 2016 Reviewer. National Science Center [*Narodowe Centrum Nauki*], Poland.
- 2016 Committee Member, Peer Review Committee—Doctoral Research Awards A. *Canadian Institutes of Health Research*, Canada.
- 2015 Assessor (Peer Reviewer). Discovery Grants Program. *Australian Research Council*, Australia.
- 2015 Reviewer. *Czech Science Foundation*, Czech Republic.
- 2015 Reviewer, “Off the beaten track” grant scheme. *Volkswagen Foundation*, Germany.
- 2015 External Reviewer, Discovery Grants program—Biological Systems and Functions. *National Sciences and Engineering Research Council of Canada*, Canada
- 2015 Committee Member, Peer Review Committee—Doctoral Research Awards A. *Canadian Institutes of Health Research*, Canada.
- 2014 Assessor (Peer Reviewer). Discovery Grants Program. *Australian Research Council*, Australia.
- 2014 External Reviewer, Discovery Grants program—Biological Systems and Functions. *National Sciences and Engineering Research Council of Canada*, Canada.
- 2014 Panel Member, Dean’s Fund—Clinical Science Panel. *University of Toronto Faculty of Medicine*, Canada.
- 2014 Committee Member, Peer Review Committee—Doctoral Research Awards A. *Canadian Institutes of Health Research*, Canada.
- 2013 Panel Member, Grant Miller Cancer Research Grant Panel. *University of Toronto Faculty of Medicine*, Canada.

- 2013 Panel Member, Dean of Medicine Fund New Faculty Grant Clinical Science Panel. *University of Toronto Faculty of Medicine, Canada.*
- 2012 Board Member, International Review Board, Research collaborations on behavioural disorders related to violence, neglect, maltreatment and abuse in childhood and adolescence (2nd round). *Bundesministerium für Bildung und Forschung [Ministry of Education and Research], Germany.*
- 2012 External Reviewer, University of Ottawa Medical Research Fund. *University of Ottawa Department of Psychiatry, Canada.*
- 2012 External Reviewer, Behavioural Sciences—B. *Canadian Institutes of Health Research, Canada.*
- 2011 Board Member, International Review Board, Research collaborations on behavioural disorders related to violence, neglect, maltreatment and abuse in childhood and adolescence. *Bundesministerium für Bildung und Forschung [Ministry of Education and Research], Germany.*

TEACHING AND TRAINING

PostDoctoral Research Supervision

Law & Mental Health Program, Centre for Addiction and Mental Health, Toronto, Canada

Dr. Katherine S. Sutton	Sept., 2012–Dec., 2013
Dr. Rachel Fazio	Sept., 2012–Aug., 2013
Dr. Amy Lykins	Sept., 2008–Nov., 2009

Doctoral Research Supervision

Centre for Addiction and Mental Health, Toronto, Canada

Michael Walton • University of New England, Australia	Sept., 2017–Aug., 2018
Debra Soh • York University	May, 2013–Aug., 2017
Skye Stephens • Ryerson University	April, 2012–June, 2016

Masters Research Supervision

Centre for Addiction and Mental Health, Toronto, Canada

Nicole Cormier • Ryerson University	June, 2012–present
Debra Soh • Ryerson University	May, 2009–April, 2010

Undergraduate Research Supervision

Centre for Addiction and Mental Health, Toronto, Canada

Kylie Reale • Ryerson University	Spring, 2014
Jarrett Hannah • University of Rochester	Summer, 2013
Michael Humeniuk • University of Toronto	Summer, 2012

Clinical Supervision (Doctoral Internship)

Clinical Internship Program, Centre for Addiction and Mental Health, Toronto, Canada

Katherine S. Sutton • Queen's University	2011–2012
David Sylva • Northwestern University	2011–2012
Jordan Rullo • University of Utah	2010–2011
Lea Thaler • University of Nevada, Las Vegas	2010–2011
Carolin Klein • University of British Columbia	2009–2010
Bobby R. Walling • University of Manitoba	2009–2010

TEACHING AND TRAINING

Clinical Supervision (Doctoral- and Masters- level practica) Centre for Addiction and Mental Health, Toronto, Canada

Tyler Tulloch • Ryerson University	2013–2014
Natalie Stratton • Ryerson University	Summer, 2013
Fiona Dyshniku • University of Windsor	Summer, 2013
Mackenzie Becker • McMaster University	Summer, 2013
Skye Stephens • Ryerson University	2012–2013
Vivian Nyantakyi • Capella University	2010–2011
Cailey Hartwick • University of Guelph	Fall, 2010
Tricia Teeft • Humber College	Summer, 2010
Allison Reeves • Ontario Institute for Studies in Education/Univ. of Toronto	2009–2010
Helen Bailey • Ryerson University	Summer, 2009
Edna Aryee • Ontario Institute for Studies in Education/Univ. of Toronto	2008–2009
Iryna Ivanova • Ontario Institute for Studies in Education/Univ. of Toronto	2008–2009
Jennifer Robinson • Ontario Institute for Studies in Education/Univ. of Toronto	2008–2009
Zoë Laksman • Adler School of Professional Psychology	2005–2006
Diana Mandelew • Adler School of Professional Psychology	2005–2006
Susan Wnuk • York University	2004–2005
Hiten Lad • Adler School of Professional Psychology	2004–2005
Natasha Williams • Adler School of Professional Psychology	2003–2004
Lisa Couperthwaite • Ontario Institute for Studies in Education/Univ. of Toronto	2003–2004
Lori Gray, née Robichaud • University of Windsor	Summer, 2003
Sandra Belfry • Ontario Institute for Studies in Education/Univ. of Toronto	2002–2003
Althea Monteiro • York University	Summer, 2002
Samantha Dworsky • York University	2001–2002
Kerry Collins • University of Windsor	Summer, 2001
Jennifer Fogarty • Waterloo University	2000–2001
Emily Cripps • Waterloo University	Summer, 2000
Lee Beckstead • University of Utah	2000

PROFESSIONAL SOCIETY ACTIVITIES

OFFICES HELD

- 2018–2019 Local Host. Society for Sex Therapy and Research.
- 2015 Member, International Scientific Committee, World Association for Sexual Health.
- 2015 Member, Program Planning and Conference Committee, Association for the Treatment of Sexual Abusers
- 2012–2013 Chair, Student Research Awards Committee, Society for Sex Therapy & Research
- 2012–2013 Member, Program Planning and Conference Committee, Association for the Treatment of Sexual Abusers
- 2011–2012 Chair, Student Research Awards Committee, Society for Sex Therapy & Research
- 2010–2011 Scientific Program Committee, International Academy of Sex Research
- 2002–2004 Membership Committee • APA Division 12 (Clinical Psychology)
- 2002–2003 Chair, Committee on Science Issues, APA Division 44
- 2002 Observer, Grant Review Committee • Canadian Institutes of Health Research Behavioural Sciences (B)
- 2001–2009 Reviewer • APA Division 44 Convention Program Committee
- 2001, 2002 Reviewer • APA Malyon-Smith Scholarship Committee
- 2000–2005 Task Force on Transgender Issues, APA Division 44
- 1998–1999 Consultant, APA Board of Directors Working Group on Psychology Marketplace
- 1997 Student Representative • APA Board of Professional Affairs' Institute on TeleHealth
- 1997–1998 Founder and Chair • APA/APAGS Task Force on New Psychologists' Concerns
- 1997–1999 Student Representative • APA/CAPP Sub-Committee for a National Strategy for Prescription Privileges
- 1997–1999 Liaison • APA Committee for the Advancement of Professional Practice
- 1997–1998 Liaison • APA Board of Professional Affairs
- 1993–1997 Founder and Chair • APA/APAGS Committee on LGB Concerns

PROFESSIONAL SOCIETY ACTIVITIES

MEMBERSHIPS

- 2017–2021 Member • *Canadian Sex Research Forum*
- 2009–Present Member • *Society for Sex Therapy and Research*
- 2006–Present Member (elected) • *International Academy of Sex Research*
- 2006–Present Research and Clinical Member • *Association for the Treatment of Sex Abusers*
- 2003–2006 Associate Member (elected) • *International Academy of Sex Research*
- 2002 Founding Member • CPA Section on Sexual Orientation and Gender Identity
- 2001–2013 Member • *Canadian Psychological Association (CPA)*
- 2000–2015 Member • *American Association for the Advancement of Science*
- 2000–2015 Member • *American Psychological Association (APA)*
APA Division 12 (Clinical Psychology)
APA Division 44 (Society for the Psychological Study of LGB Issues)
- 2000–2020 Member • *Society for the Scientific Study of Sexuality*
- 1995–2000 Student Member • *Society for the Scientific Study of Sexuality*
- 1993–2000 Student Affiliate • *American Psychological Association*
- 1990–1999 Member, American Psychological Association of Graduate Students (APAGS)

CLINICAL LICENSURE/REGISTRATION

Certificate of Registration, Number 3793
College of Psychologists of Ontario, Ontario, Canada

AWARDS AND HONORS

2017 Elected Fellow, Association for the Treatment of Sexual Abusers

2011 Howard E. Barbaree Award for Excellence in Research
Centre for Addiction and Mental Health, Law and Mental Health Program

2004 fMRI Visiting Fellowship Program at Massachusetts General Hospital
American Psychological Association Advanced Training Institute and NIH

1999–2001 CAMH Post-Doctoral Research Fellowship
Centre for Addiction and Mental Health Foundation and Ontario Ministry of Health

1998 Award for Distinguished Contribution by a Student
American Psychological Association, Division 44

1995 Dissertation Research Grant
Society for the Scientific Study of Sexuality

1994–1996 McGill University Doctoral Scholarship

1994 Award for Outstanding Contribution to Undergraduate Teaching
“TA of the Year Award,” from the McGill Psychology Undergraduate Student Association

MAJOR MEDIA

(Complete list available upon request.)

Feature-length Documentaries

Vice Canada Reports. [Age of Consent](#). 14 Jan 2017.

Canadian Broadcasting Company. [I, Pedophile](#). Firsthand documentaries. 10 Mar 2016.

Appearances and Interviews

11 Mar 2020. Ibbitson, John. [It is crucial that Parliament gets the conversion-therapy ban right](#). *The Globe & Mail*.

25 Jan 2020. [Ook de hulpvaardige buurman kan verzamelaar van kinderporno zin](#). *De Morgen*.

3 Nov 2019. [Village of the damned](#). *60 Minutes Australia*.

1 Nov 2019. HÅKON F. HØYDAL. [Norsk nettovergriper: – Jeg hater meg selv: Nordmannen laster ned overgrepsmateriale fra nettet – og oppfordrer politiet til å gi amnesti for slike som ham](#).

10 Oct 2019. Smith, T. [Growing efforts are looking at how—or if—#MeToo offenders can be reformed](#). *National Public Radio*.

29 Sep 2019. Carey, B. [Preying on Children: The Emerging Psychology of Pedophiles](#). *New York Times*.

29 Apr 2019. Mathieu, Isabelle. [La poupée qui a troublé les Terre-Neuviens](#). *La Tribune*.

21 Mar 2019. [Pope Francis wants psychological testing to prevent problem priests. But can it really do that?](#) *The Washington Post*.

12 Dec 2018. [Child sex dolls: Illegal in Canada, and dozens seized at the border](#). Ontario Today with Rita Celli. *CBC*.

12 Dec 2018. Celli, R. & Harris, K. [Dozens of child sex dolls seized by Canadian border agents](#). *CBC News*.

27 Apr 2018. Rogers, Brook A. [The online ‘incel’ culture is real—and dangerous](#). *New York Post*.

25 Apr 2018. Yang, J. [Number cited in cryptic Facebook post matches Alek Minassian’s military ID: Source](#). *Toronto Star*.

24 Apr 2018 [Understanding ‘incel’](#). *CTV News*.

27 Nov 2017. Carey, B. [Therapy for Sexual Misconduct? It’s Mostly Unproven](#). *New York Times*.

14 Nov 2017. Tremonti, A. M. [The Current](#). *CBC*.

9 Nov 2017. Christensen, J. Why men use masturbation to harass women. *CNN*.
<http://www.cnn.com/2017/11/09/health/masturbation-sexual-harassment/index.html>

7 Nov 2017. Nazaryan, A. [Why is the alt-right obsessed with pedophilia?](#) *Newsweek*.

15 Oct 2017. Ouatik, B. Découvre. [Pédophilie et science](#). *CBC Radio Canada*.

12 Oct 2017. Ouatik, B. [Peut-on guérir la pédophilie?](#) *CBC Radio Canada*.

11 Sep 2017. Burns, C. [The young paedophiles who say they don’t abuse children](#). *BBC News*.

18 Aug 2017. Interview. *National Post Radio*. Sirius XM Canada.

16 Aug 2017. Blackwell, Tom. [Man says he was cured of pedophilia at Ottawa clinic: ‘It’s like a weight that’s been lifted’: But skeptics worry about the impact of sending pedophiles into the world convinced their curse has been vanquished](#). *National Post*.

26 Apr 2017. Zalkind, S. [Prep schools hid sex abuse just like the catholic church](#). *VICE*.

24 Apr 2017. Sastre, P. [Pédophilie: une panique morale jamais n’abolira un crime](#). *Slate France*.

12 Feb 2017. Payette, G. [Child sex doll trial opens Pandora’s box of questions](#). *CBC News*.

26 Nov 2016. [Det morke uvettet](#) [“The unknown darkness”]. *Fedrelandsvennen*.

13 July 2016. [Paedophilia: Shedding light on the dark field](#). *The Economist*.

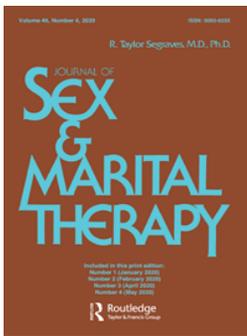
- 1 Jul 2016. Debusschere, B. [Niet iedereen die kinderporno kijkt, is een pedofiel: De mythes rond pedofilie ontkracht](#). *De Morgen*.
- 12 Apr 2016. O'Connor, R. [Terence Martin: The Tasmanian MP whose medication 'turned him into a paedophile'](#). *The Independent*.
- 8 Mar 2016. Bielski, Z. [‘The most viscerally hated group on earth’: Documentary explores how intervention can stop pedophiles](#). *The Globe and Mail*.
- 1 Mar 2016. Elmhirst, S. [What should we do about paedophiles?](#) *The Guardian*.
- 24 Feb 2016. [The man whose brain tumour ‘turned him into a paedophile’](#). *The Independent*.
- 24 Nov 2015. Byron, T. [The truth about child sex abuse](#). *BBC Two*.
- 20 Aug 2015. [The Jared Fogle case: Why we understand so little about abuse](#). *Washington Post*.
- 19 Aug 2015. Blackwell, T. [Treat sex offenders for impotence—to keep them out of trouble, Canadian psychiatrist says](#). *National Post*.
- 2 Aug 2015. Menendez, J. [BBC News Hour](#). *BBC World Service*.
- 13 Jul 2015. [The nature of pedophilia](#). *BBC Radio 4*.
- 9 Jul 2015. [The sex-offender test: How a computerized assessment can help determine the fate of men who’ve been accused of sexually abusing children](#). *The Atlantic*.
- 10 Apr 2015. [NWT failed to prevent sex offender from abusing stepdaughter again](#). *CBC News*.
- 10 Feb 2015. Savage, D. [“The ethical sadist.”](#) In *Savage Love*. *The Stranger*.
- 31 Jan 2015. [Begrip voor/van pedofilie](#) [Understanding pedophilia]. *de Volkskrant*.
- 9 Dec 2014. Carey, B. [When a rapist’s weapon is a pill](#). *New York Times*.
- 1 Dec 2014. Singal, J. [Can virtual reality help pedophiles?](#) *New York Magazine*.
- 17 Nov 2014. [Say pedófile, busco aydua](#). *El Pais*.
- 4 Sep 2014. [Born that way?](#) *Ideas, with Paul Kennedy*. CBC Radio One.
- 27 Aug 2014. [Interrogating the statistics for the prevalence of paedophilia](#). BBC.
- 25 Jul 2014. Stephenson, W. [The prevalence of paedophilia](#). *BBC World Service*.
- 21 Jul 2014. Hildebrandt, A. [Virtuous Pedophiles group gives support therapy cannot](#). *CBC*.
- 26 Jan 2014. [Paedophilia a result of faulty wiring, scientists suggest](#). *Daily Mail*.
- 22 Dec 2013. Kane, L. [Is pedophilia a sexual orientation?](#) *Toronto Star*.
- 21 Jul 2013. Miller, L. [The turn-on switch: Fetish theory, post-Freud](#). *New York Magazine*.
- 1 Jul 2013. Morin, H. [Pédophilie: la difficile quête d'une origine biologique](#). *Le Monde*.
- 2 Jun 2013. Malcolm, L. [The psychology of paedophilia](#). *Australian National Radio*.
- 1 Mar 2013. Kay, J. [The mobbing of Tom Flanagan is unwarranted and cruel](#). *National Post*.
- 6 Feb 2013. [Boy Scouts board delays vote on lifting ban on gays](#). *L.A. Times*.
- 31 Aug 2012. [CNN Newsroom interview with Ashleigh Banfield](#). *CNN*.
- 24 Jun 2012. [CNN Newsroom interview with Don Lemon](#). *CNN*.

LEGAL TESTIMONY, PAST 4 YEARS

- | | | | |
|-----|------|---|------------------------|
| 1. | 2022 | A.M. v Indiana Public Schools | Southern District, IN |
| 2. | 2022 | Ricard v Kansas | Geery County, KS |
| 3. | 2022 | Eknes-Tucker v Alabama | Montgomery County, AL |
| 4. | 2022 | Hersom & Doe v WVa Health & Human Services | Southern District, WVa |
| 5. | 2022 | BPJ v West Virginia Board of Education | Southern District, WVa |
| 6. | 2021 | Cox v Indiana Child Services | Child Services, IN |
| 7. | 2021 | Josephson v University of Kentucky | Western District, KY |
| 8. | 2021 | Cross et al. v Loudoun School Board | Loudoun, VA |
| 9. | 2021 | Re Commitment of Michael Hughes (Frye Hearing) | Cook County, IL |
| 10. | 2019 | US vs Peter Bright | Southern District, NY |
| 11. | 2019 | Spiegel-Savoie vs Savoie-Sexten (Custody Hearing) | Boston, MA |
| 12. | 2019 | Re Commitment of Steven Casper (Frye Hearing) | Kendall County, IL |
| 13. | 2019 | Re Commitment of Inger (Frye Hearing) | Poughkeepsie, NY |

Prospective Outcomes Studies of Gender Dysphoric Children

2/16	gay	Lebovitz, P. S. (1972). Feminine behavior in boys: Aspects of its outcome. <i>American Journal of Psychiatry</i> , 128, 1283–1289.
4/16	trans-/crossdress	
10/16	straight/uncertain	
2/16	trans-	Zuger, B. (1978). Effeminate behavior present in boys from childhood: Ten additional years of follow-up. <i>Comprehensive Psychiatry</i> , 19, 363–369.
2/16	uncertain	
12/16	gay	
0/9	trans-	Money, J., & Russo, A. J. (1979). Homosexual outcome of discordant gender identity/role: Longitudinal follow-up. <i>Journal of Pediatric Psychology</i> , 4, 29–41.
9/9	gay	
2/45	trans-/crossdress	Zuger, B. (1984). Early effeminate behavior in boys: Outcome and significance for homosexuality. <i>Journal of Nervous and Mental Disease</i> , 172, 90–97.
10/45	uncertain	
33/45	gay	
1/10	trans-	Davenport, C. W. (1986). A follow-up study of 10 feminine boys. <i>Archives of Sexual Behavior</i> , 15, 511–517.
2/10	gay	
3/10	uncertain	
4/10	straight	
1/44	trans-	Green, R. (1987). <i>The "sissy boy syndrome" and the development of homosexuality</i> . New Haven, CT: Yale University Press.
43/44	cis-	
0/8	trans-	Kosky, R. J. (1987). Gender-disordered children: Does inpatient treatment help? <i>Medical Journal of Australia</i> , 146, 565–569.
8/8	cis-	
21/54	trans-	Wallien, M. S. C., & Cohen-Kettenis, P. T. (2008). Psychosexual outcome of gender-dysphoric children. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> , 47, 1413–1423.
33/54	cis-	
3/25	trans-	Drummond, K. D., Bradley, S. J., Badali-Peterson, M., & Zucker, K. J. (2008). A follow-up study of girls with gender identity disorder. <i>Developmental Psychology</i> , 44, 34–45.
6/25	lesbian/bi-	
16/25	straight	
47/127	trans-	Steensma, T. D., McGuire, J. K., Kreukels, B. P. C., Beekman, A. J., & Cohen-Kettenis, P. T. (2013). Factors associated with desistence and persistence of childhood gender dysphoria: A quantitative follow-up study. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> , 52, 582–590.
80/127	cis-	
17/139	trans-	Singh, D., Bradley, S. J., and Zucker, K. J. (2021) A follow-up study of boys with gender identity disorder. <i>Frontiers in Psychiatry</i> , 12, 632784. doi: 10.3389/fpsy.2021.632784
122/139	cis-	



Transgender and Gender Diverse Children and Adolescents: Fact-Checking of AAP Policy

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APP. 3



Transgender and Gender Diverse Children and Adolescents: Fact-Checking of AAP Policy

James M. Cantor

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ABSTRACT

The American Academy of Pediatrics (AAP) recently published a policy statement: *Ensuring comprehensive care and support for transgender and gender-diverse children and adolescents*. Although almost all clinics and professional associations in the world use what's called the *watchful waiting* approach to helping gender diverse (GD) children, the AAP statement instead rejected that consensus, endorsing *gender affirmation* as the only acceptable approach. Remarkably, not only did the AAP statement fail to include any of the actual outcomes literature on such cases, but it also misrepresented the contents of its citations, which repeatedly said the very opposite of what AAP attributed to them.

The American Academy of Pediatrics (AAP) recently published a policy statement entitled, *Ensuring comprehensive care and support for transgender and gender-diverse children and adolescents* (Rafferty, AAP Committee on Psychosocial Aspects of Child and Family Health, AAP Committee on Adolescence, AAP Section on Lesbian, Gay, Bisexual, and Transgender Health and Wellness, 2018). These are children who manifest discontent with the sex they were born as and desire to live as the other sex (or as some alternative gender role). The policy was quite a remarkable document: Although almost all clinics and professional associations in the world use what's called the *watchful waiting* approach to helping transgender and gender diverse (GD) children, the AAP statement rejected that consensus, endorsing only *gender affirmation*. That is, where the consensus is to delay any transitions after the onset of puberty, AAP instead rejected waiting before transition. With AAP taking such a dramatic departure from other professional associations, I was immediately curious about what evidence led them to that conclusion. As I read the works on which they based their policy, however, I was pretty surprised—rather alarmed, actually: These documents simply did not say what AAP claimed they did. In fact, the references that AAP cited as the basis of their policy instead outright contradicted that policy, repeatedly endorsing *watchful waiting*.

The AAP statement was also remarkable in what it left out—namely, the actual outcomes research on GD children. In total, there have been 11 follow-up studies of GD children, of which AAP cited one (Wallien & Cohen-Kettenis, 2008), doing so without actually mentioning the outcome data it contained. The literature on outcomes was neither reviewed, summarized, nor subjected to meta-analysis to be considered in the aggregate—It was merely disappeared. (The list of all existing studies appears in the appendix.) As they make clear, *every* follow-up study of GD children, without exception, found the same thing: Over puberty, the majority of GD children cease to want to transition. AAP is, of course, free to establish whatever policy it likes on

whatever basis it likes. But any assertion that their policy is based on evidence is demonstrably false, as detailed below.

AAP divided clinical approaches into three types—conversion therapy, watchful waiting, and gender affirmation. It rejected the first two and endorsed *gender affirmation* as the only acceptable alternative. Most readers will likely be familiar already with attempts to use conversion therapy to change sexual orientation. With regard to gender identity, AAP wrote:

“[C]onversion” or “reparative” treatment models are used to prevent children and adolescents from identifying as transgender or to dissuade them from exhibiting gender-diverse expressions. . . . Reparative approaches have been proven to be not only unsuccessful³⁸ but also deleterious and are considered outside the mainstream of traditional medical practice.^{29,39–42}

The citations were:

38. Haldeman DC. The practice and ethics of sexual orientation conversion therapy. *J Consult Clin Psychol*. 1994;62(2):221–227.
29. Adelson SL; American Academy of Child and Adolescent Psychiatry (AACAP) Committee on Quality Issues (CQI). Practice parameter on gay, lesbian, or bisexual sexual orientation, gender nonconformity, and gender discordance in children and adolescents. *J Am Acad Child Adolesc Psychiatry*. 2012;51(9):957–974.
39. Byne W. Regulations restrict practice of conversion therapy. *LGBT Health*. 2016;3(2):97–99.
40. Cohen-Kettenis PT, Delemarre van de Waal HA, Gooren LJ. The treatment of adolescent transsexuals: changing insights. *J Sex Med*. 2008;5(8):1892–1897.
41. Bryant K. Making gender identity disorder of childhood: historical lessons for contemporary debates. *Sex Res Soc Policy*. 2006;3(3):23–39.
42. World Professional Association for Transgender Health. *WPATH De-Psyopathologisation Statement*. Minneapolis, MN: World Professional Association for Transgender Health; 2010.

AAP’s claims struck me as odd because *there are no studies of conversion therapy for gender identity*. Studies of conversion therapy have been limited to *sexual orientation*, and, moreover, to the sexual orientation of *adults*, not to gender identity and not of children in any case. The article AAP cited to support their claim (reference number 38) is indeed a classic and well-known review, but it is a review of sexual orientation research *only*. Neither gender identity, nor even children, received a single mention in it. Indeed, the narrower scope of that article should be clear to anyone reading even just its title: “The practice and ethics of *sexual orientation* conversion therapy” [italics added].

AAP continued, saying that conversion approaches for GD children have already been rejected by medical consensus, citing five sources. This claim struck me as just as odd, however—I recalled associations banning conversion therapy for sexual orientation, but not for gender identity, exactly because there is no evidence for generalizing from adult sexual orientation to childhood gender identity. So, I started checking AAP’s citations for that, and these sources too pertained only to sexual orientation, not gender identity (specifics below). What AAP’s sources *did* repeatedly emphasize was that:

- A. Sexual orientation of adults is unaffected by conversion therapy and any other [known] intervention;
- B. Gender dysphoria in childhood before puberty desists in the majority of cases, becoming (cis-gendered) homosexuality in adulthood, again regardless of any [known] intervention; and
- C. Gender dysphoria in childhood persisting after puberty tends to persist entirely.

That is, in the context of GD children, it simply makes no sense to refer to externally induced “conversion”: The majority of children “convert” to cisgender or “desist” from transgender

regardless of any attempt to change them. “Conversion” only makes sense with regard to adult sexual orientation because (unlike childhood gender identity), adult homosexuality never or nearly never spontaneously changes to heterosexuality. Although gender identity and sexual orientation may often be analogous and discussed together with regard to social or political values and to civil rights, they are nonetheless distinct—with distinct origins, needs, and responses to medical and mental health care choices. Although AAP emphasized to the reader that “gender identity is not synonymous with ‘sexual orientation’” (Rafferty et al., 2018, p. 3), they went ahead to treat them as such nonetheless.

To return to checking AAP’s fidelity to its sources: Reference 29 was a practice guideline from the Committee on Quality Issues of the American Academy of Child and Adolescent Psychiatry (AACAP). Despite AAP applying this source to *gender identity*, AACAP was quite unambiguous regarding their intent to speak to sexual orientation and *only* to sexual orientation: “Principle 6. Clinicians should be aware that there is no evidence that *sexual orientation* can be altered through therapy, and that attempts to do so may be harmful. There is no established evidence that change in a predominant, enduring *homosexual* pattern of development is possible. Although sexual fantasies can, to some degree, be suppressed or repressed by those who are ashamed of or in conflict about them, sexual desire is not a choice. However, behavior, social role, and—to a degree—identity and self-acceptance are. Although operant conditioning modifies sexual fetishes, it does not alter *homosexuality*. Psychiatric efforts to alter *sexual orientation* through ‘reparative therapy’ *in adults* have found little or no change in *sexual orientation*, while causing significant risk of harm to self-esteem” (AACAP, 2012, p. 967, italics added).

Whereas AAP cites AACAP to support gender affirmation as the only alternative for treating GD children, AACAP’s actual view was decidedly neutral, noting the lack of evidence: “Given the lack of empirical evidence from randomized, controlled trials of the efficacy of treatment aimed at eliminating gender discordance, the potential risks of treatment, and longitudinal evidence that gender discordance persists in only a small minority of untreated cases arising in childhood, further research is needed on predictors of persistence and desistence of childhood gender discordance as well as the long-term risks and benefits of intervention before any treatment to eliminate gender discordance can be endorsed” (AACAP, 2012, p. 969). Moreover, whereas AAP rejected watchful waiting, what AACAP recommended was: “In general, it is desirable to help adolescents who may be experiencing gender distress and dysphoria to defer sex reassignment until adulthood” (AACAP, 2012, p. 969). So, not only did AAP attribute to AACAP something AACAP never said, but also AAP withheld from readers AACAP’s actual view.

Next, in reference 39, Byne (2016) also addressed only sexual orientation, doing so very clearly: “Reparative therapy is a subset of conversion therapies based on the premise that *same-sex attraction* are reparations for childhood trauma. Thus, practitioners of reparative therapy believe that exploring, isolating, and repairing these childhood emotional wounds will often result in reducing *same-sex attractions*” (Byne, 2016, p. 97). Byne does not say this of gender identity, as the AAP statement misrepresents.

In AAP reference 40, Cohen-Kettenis et al. (2008) did finally pertain to gender identity; however, this article never mentions conversion therapy. (!) Rather, in this study, the authors presented that clinic’s lowering of their minimum age for cross-sex hormone treatment from age 18 to 16, which they did on the basis of a series of studies showing the high rates of success with this age group. Although it did strike me as odd that AAP picked as support against conversion therapy an article that did not mention conversion therapy, I could imagine AAP cited the article as an example of what the “mainstream of traditional medical practice” consists of (the logic being that conversion therapy falls outside what an ‘ideal’ clinic like this one provides). However, what this clinic provides is the very *watchful waiting* approach that AAP rejected. The approach

espoused by Cohen-Kettenis (and the other clinics mentioned in the source—Gent, Boston, Oslo, and now formerly, Toronto) is to make puberty-halting interventions available at age 12 because: “[P]ubertal suppression may give adolescents, together with the attending health professional, more time to explore their gender identity, without the distress of the developing secondary sex characteristics. The precision of the diagnosis may thus be improved” (Cohen-Kettenis et al., 2008, p. 1894).

Reference 41 presented a very interesting history spanning the 1960s–1990s about how feminine boys and tomboyish girls came to be recognized as mostly pre-homosexual, and how that status came to be entered into the DSM at the same time as homosexuality was being *removed* from the DSM. Conversion therapy is never mentioned. Indeed, to the extent that Bryant mentions treatment at all, it is to say that treatment is entirely irrelevant to his analysis: “An important omission from the *DSM* is a discussion of the kinds of treatment that GIDC children should receive. (This omission is a general orientation of the *DSM* and not unique to GIDC)” (Bryant, 2006, p. 35). How this article supports AAP’s claim is a mystery. Moreover, how AAP could cite a 2006 history discussing events of the 1990s and earlier to support a claim about the *current* consensus in this quickly evolving discussion remains all the more unfathomable.

Cited last in this section was a one-paragraph press release from the World Professional Association for Transgender Health. Written during the early stages of the American Psychiatric Association’s (APA’s) update of the *DSM*, the statement asserted simply that “The WPATH Board of Directors strongly urges the de-psychopathologisation of gender variance worldwide.” Very reasonable debate can (and should) be had regarding whether gender dysphoria should be removed from the *DSM* as homosexuality was, and WPATH was well within its purview to assert that it should. Now that the *DSM* revision process is years completed however, history has seen that APA ultimately retained the diagnostic categories, rejecting WPATH’s urging. This makes AAP’s logic entirely backwards: That WPATH’s request to depathologize gender dysphoria was *rejected* suggests that it is WPATH’s view—and therefore the AAP policy—which fall “outside the mainstream of traditional medical practice.” (!)

AAP based this entire line of reasoning on their belief that conversion therapy is being used “to prevent children and adolescents from identifying as transgender” (Rafferty et al., 2018, p. 4). That claim is left without citation or support. In contrast, what is said by AAP’s sources is “delaying affirmation should *not* be construed as conversion therapy or an attempt to change gender identity” in the first place (Byne, 2016, p. 2). Nonetheless, AAP seems to be doing exactly that: simply relabeling any alternative approach as equivalent to conversion therapy.

Although AAP (and anyone else) may reject (what they label to be) conversion therapy purely on the basis of political or personal values, there is no evidence to back the AAP’s stated claim about the existing science on gender identity at all, never mind gender identity of children.

AAP also dismissed the watchful waiting approach out of hand, not citing any evidence, but repeatedly calling it “outdated.” The criticisms AAP provided, however, again defied the existing evidence, with even its own sources repeatedly calling watchful waiting the current standard. According to AAP:

[G]ender affirmation is in contrast to the outdated approach in which a child’s gender-diverse assertions are held as “possibly true” until an arbitrary age (often after pubertal onset) when they can be considered valid, an approach that authors of the literature have termed “watchful waiting.” This outdated approach does not serve the child because critical support is withheld. Watchful waiting is based on binary notions of gender in which gender diversity and fluidity is pathologized; in watchful waiting, it is also assumed that notions of gender identity become fixed at a certain age. The approach is also influenced by a group of early studies with validity concerns, methodologic flaws, and limited follow-up on children who identified as TGD and, by adolescence, did not seek further treatment (“desisters”).^{45,47}

The citations from AAP’s reference list are:

45. Ehrensaft D, Giammattei SV, Storck K, Tishelman AC, Keo-Meier C. Prepubertal social gender transitions: what we know; what we can learn—a view from a gender affirmative lens. *Int J Transgend.* 2018;19(2):251–268
47. Olson KR. Prepubescent transgender children: what we do and do not know. *J Am Acad Child Adolesc Psychiatry.* 2016;55(3):155–156.e3

I was surprised first by the AAP's claim that watchful waiting's delay to puberty was somehow "arbitrary." The literature, including AAP's sources, repeatedly indicated the pivotal importance of puberty, noting that outcomes strongly diverge at that point. According to AAP reference 29, in "*prepubertal boys with gender discordance—including many without any mental health treatment—the cross gender wishes usually fade over time and do not persist into adulthood, with only 2.2% to 11.9% continuing to experience gender discordance*" (Adelson & AACAP, 2012, p. 963, italics added), whereas "when gender variance with the desire to be the other sex is present *in adolescence, this desire usually does persist through adulthood*" (Adelson & AACAP, 2012, p. 964, italics added). Similarly, according to AAP reference 40, "Symptoms of GID *at prepubertal ages decrease or even disappear in a considerable percentage of children (estimates range from 80–95%). Therefore, any intervention in childhood would seem premature and inappropriate. However, GID persisting into early puberty appears to be highly persistent*" (Cohen-Kettenis et al., 2008, p. 1895, italics added). That follow-up studies of prepubertal transition differ from postpubertal transition is the very meaning of non-arbitrary. AAP gave readers exactly the reverse of what was contained in its own sources. If AAP were correct in saying that puberty is an arbitrarily selected age, then AAP will be able to offer another point to wait for with as much empirical backing as puberty has.

Next, it was not clear on what basis AAP could say that watchful waiting withholds support—AAP cited no support for its claim. The people in such programs often receive substantial support during this period. Also unclear is on what basis AAP could already know exactly which treatments are "critical" and which are not—Answering that question is the very purpose of this entire endeavor. Indeed, the logic of AAP's claim appears entirely circular: It is only if one were already pre-convinced that gender affirmation is the only acceptable alternative that would make watchful waiting seem to withhold critical support—What it delays is gender affirmation, the method one has already decided to be critical.

Although AAP's next claim did not have a citation appearing at the end of its sentence, binary notions of gender were mentioned both in references 45 and 47. Specifically, both pointed out that existing outcome studies have been about people transitioning from one sex to the other, rather than from one sex to an in-between status or a combination of masculine/feminine features. Neither reference presented this as a reason to reject the results from the existing studies of complete transition however (which is how AAP cast it). Although it is indeed true that the outcome data have been about complete transition, some future study showing that partial transition shows a different outcome would not invalidate what is known about complete transition. Indeed, data showing that partial transition gives better outcomes than complete transition would, once again, support the watchful waiting approach which AAP rejected.

Next was a vague reference alleging concerns and criticisms about early studies. Had AAP indicated what those alleged concerns and flaws were (or which studies they were), then it would be possible to evaluate or address them. Nonetheless, the argument is a red herring: Because all of the later studies showed the same result as did the early studies, any such allegation is necessarily moot.

Reference 47 was a one-and-a-half page commentary in which the author off-handedly mentions criticisms previously made of three of the eleven outcome studies of GD children, but does not provide any analysis or discussion. The only specific claim was that studies (whether early or late) had limited follow-up periods—the logic being that had outcome researchers lengthened the follow-up period, then people who seemed to have desisted might have returned to the clinic as

cases of “persistence-after-interruption.” Although one could debate the merits of that prediction, AAP instead simply withheld from the reader the result from the original researchers having tested that very prediction directly: Steensma and Cohen-Kettenis (2015) conducted another analysis of their cohort, by then ages 19–28 (mean age 25.9 years), and found that 3.3% (5 people of the sample of 150) later returned. That is, in long-term follow-up, the childhood sample showed 66.7% desistance instead of 70.0% desistance.

Reference 45 did not support the claim that watchful-waiting is “outdated” either. Indeed, that source said the very opposite, explicitly referring to watchful waiting as the *current* approach: “Put another way, if clinicians are straying from SOC 7 guidelines for social transitions, not abiding by the watchful waiting model *avored by the standards*, we will have adolescents who have been consistently living in their affirmed gender since age 3, 4, or 5” (Ehrensaft et al., 2018, p. 255). Moreover, Ehrensaft et al. said there are cases in which they too would still use watchful waiting: “When a child’s gender identity is unclear, the watchful waiting approach can give the child and their family time to develop a clearer understanding and is not necessarily in contrast to the needs of the child” (p. 259). Ehrensaft et al. are indeed critical of the watchful waiting model (which they feel is applied too conservatively), but they do not come close to the position the AAP policy espouses. Where Ehrensaft summarizes the potential benefits and potential risks both to transitioning and not transitioning, the AAP presents an ironically binary narrative.

In its policy statement, AAP told neither the truth nor the whole truth, committing sins both of commission and of omission, asserting claims easily falsified by anyone caring to do any fact-checking at all. AAP claimed, “This policy statement is focused specifically on children and youth that identify as TGD rather than the larger LGBTQ population”; however, much of that evidence was about sexual orientation, not gender identity. AAP claimed, “Current available research and expert opinion from clinical and research leaders ... will serve as the basis for recommendations” (pp. 1–2); however, they provided recommendations entirely unsupported and even in direct opposition to that research and opinion.

AAP is advocating for something far in excess of mainstream practice and medical consensus. In the presence of compelling evidence, that is just what is called for. The problems with Rafferty, however, do not constitute merely a misquote, a misinterpretation of an ambiguous statement, or a missing reference or two. Rather, AAP’s statement is a systematic exclusion and misrepresentation of entire literatures. Not only did AAP fail to provide compelling evidence, it failed to provide the evidence at all. Indeed, AAP’s recommendations are *despite* the existing evidence.

Disclosure statement

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References

- Rafferty, J., AAP Committee on Psychosocial Aspects of Child and Family Health, AAP Committee on Adolescence, AAP Section on Lesbian, Gay, Bisexual, and Transgender Health and Wellness. (2018). Ensuring comprehensive care and support for transgender and gender-diverse children and adolescents. *Pediatrics*, 142(4), e20182162 doi:10.1542/peds.2018-2162
- Steensma, T. D., & Cohen-Kettenis, P. T. (2015). More than two developmental pathways in children with gender dysphoria? *Journal of the American Academy of Child and Adolescent Psychiatry*, 52, 147–148. doi:10.1016/j.jaac.2014.10.016
- Wallien, M. S. C., & Cohen-Kettenis, P. T. (2008). Psychosexual outcome of gender-dysphoric children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 47, 1413–1423. doi:10.1097/CHI.0b013e31818956b9

Appendix

Count	Group	Study
2/16	gay*	Lebovitz, P. S. (1972). Feminine behavior in boys: Aspects of its outcome. <i>American Journal of Psychiatry</i> , 128, 1283–1289.
4/16	trans-/crossdress	
10/16	straight*/uncertain	
2/16	trans-	Zuger, B. (1978). Effeminate behavior present in boys from childhood: Ten additional years of follow-up. <i>Comprehensive Psychiatry</i> , 19, 363–369.
2/16	uncertain	
12/16	gay	
0/9	trans-	Money, J., & Russo, A. J. (1979). Homosexual outcome of discordant gender identity/role: Longitudinal follow-up. <i>Journal of Pediatric Psychology</i> , 4, 29–41.
9/9	gay	
2/45	trans-/crossdress	Zuger, B. (1984). Early effeminate behavior in boys: Outcome and significance for homosexuality. <i>Journal of Nervous and Mental Disease</i> , 172, 90–97.
10/45	uncertain	
33/45	gay	
1/10	trans-	Davenport, C. W. (1986). A follow-up study of 10 feminine boys. <i>Archives of Sexual Behavior</i> , 15, 511–517.
2/10	gay	
3/10	uncertain	
4/10	straight	
1/44	trans-	Green, R. (1987). <i>The "sissy boy syndrome" and the development of homosexuality</i> . New Haven, CT: Yale University Press.
43/44	cis-	
0/8	trans-	Kosky, R. J. (1987). Gender-disordered children: Does inpatient treatment help? <i>Medical Journal of Australia</i> , 146, 565–569.
8/8	cis-	
21/54	trans-	Wallien, M. S. C., & Cohen-Kettenis, P. T. (2008). Psychosexual outcome of gender-dysphoric children. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> , 47, 1413–1423.
33/54	cis-	
3/25	trans-	Drummond, K. D., Bradley, S. J., Badali-Peterson, M., & Zucker, K. J. (2008). A follow-up study of girls with gender identity disorder. <i>Developmental Psychology</i> , 44, 34–45.
6/25	lesbian/bi-	
16/25	straight	
17/139	trans-	Singh, D. (2012). <i>A follow-up study of boys with gender identity disorder</i> . Unpublished doctoral dissertation, University of Toronto.
122/139	cis-	
47/127	trans-	Steensma, T. D., McGuire, J. K., Kreukels, B. P. C., Beekman, A. J., & Cohen-Kettenis, P. T. (2013). Factors associated with desistence and persistence of childhood gender dysphoria: A quantitative follow-up study. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> , 52, 582–590.
80/127	cis-	

*For brevity, the list uses "gay" for "gay and cis-", "straight" for "straight and cis-", etc.

VI

Assessment and Treatment of Children and Adolescents with Gender Dysphoria

There are a number of differences in the phenomenology, developmental course, and treatment approaches for gender dysphoria in children, adolescents, and adults. In children and adolescents, a rapid and dramatic developmental process (physical, psychological, and sexual) is involved and

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there is greater fluidity and variability in outcomes, particular in prepubertal children. Accordingly, this section of the SOC offers specific clinical guidelines for the assessment and treatment of gender dysphoric children and adolescents.

Differences between Children and Adolescents with Gender Dysphoria

An important difference between gender dysphoric children and adolescents is in the proportion for whom dysphoria persists into adulthood. Gender dysphoria during childhood does not inevitably continue into adulthood.⁵ Rather, in follow-up studies of prepubertal children (mainly boys) who were referred to clinics for assessment of gender dysphoria, the dysphoria persisted into adulthood for only 6-23% of children (Cohen-Kettenis, 2001; Zucker & Bradley, 1995). Boys in these studies were more likely to identify as gay in adulthood than as transgender (Green, 1987; Money & Russo, 1979; Zucker & Bradley, 1995; Zuger, 1984). Newer studies, also including girls, showed a 12-27% persistence rate of gender dysphoria into adulthood (Drummond, Bradley, Peterson-Badali, & Zucker, 2008; Wallien & Cohen-Kettenis, 2008).

In contrast, the persistence of gender dysphoria into adulthood appears to be much higher for adolescents. No formal prospective studies exist. However, in a follow-up study of 70 adolescents who were diagnosed with gender dysphoria and given puberty suppressing hormones, all continued with the actual sex reassignment, beginning with feminizing/masculinizing hormone therapy (de Vries, Steensma, Doreleijers, & Cohen-Kettenis, 2010).

Another difference between gender dysphoric children and adolescents is in the sex ratios for each age group. In clinically referred, gender dysphoric children under age 12, the male/female ratio ranges from 6:1 to 3:1 (Zucker, 2004). In clinically referred, gender dysphoric adolescents older than age 12, the male/female ratio is close to 1:1 (Cohen-Kettenis & Pfäfflin, 2003).

As discussed in section IV and by Zucker and Lawrence (2009), formal epidemiologic studies on gender dysphoria – in children, adolescents, and adults – are lacking. Additional research is needed to refine estimates of its prevalence and persistence in different populations worldwide.

⁵ Gender nonconforming behaviors in children may continue into adulthood, but such behaviors are not necessarily indicative of gender dysphoria and a need for treatment. As described in section III, gender dysphoria is not synonymous with diversity in gender expression.

Phenomenology in Children

Children as young as age two may show features that could indicate gender dysphoria. They may express a wish to be of the other sex and be unhappy about their physical sex characteristics and functions. In addition, they may prefer clothes, toys, and games that are commonly associated with the other sex and prefer playing with other-sex peers. There appears to be heterogeneity in these features: Some children demonstrate extremely gender nonconforming behavior and wishes, accompanied by persistent and severe discomfort with their primary sex characteristics. In other children, these characteristics are less intense or only partially present (Cohen-Kettenis et al., 2006; Knudson, De Cuypere, & Bockting, 2010a).

It is relatively common for gender dysphoric children to have co-existing internalizing disorders such as anxiety and depression (Cohen-Kettenis, Owen, Kaijser, Bradley, & Zucker, 2003; Wallien, Swaab, & Cohen-Kettenis, 2007; Zucker, Owen, Bradley, & Ameeriar, 2002). The prevalence of autistic spectrum disorders seems to be higher in clinically referred, gender dysphoric children than in the general population (de Vries, Noens, Cohen-Kettenis, van Berckelaer-Onnes, & Doreleijers, 2010).

Phenomenology in Adolescents

In most children, gender dysphoria will disappear before or early in puberty. However, in some children these feelings will intensify and body aversion will develop or increase as they become adolescents and their secondary sex characteristics develop (Cohen-Kettenis, 2001; Cohen-Kettenis & Pfäfflin, 2003; Drummond et al., 2008; Wallien & Cohen-Kettenis, 2008; Zucker & Bradley, 1995). Data from one study suggest that more extreme gender nonconformity in childhood is associated with persistence of gender dysphoria into late adolescence and early adulthood (Wallien & Cohen-Kettenis, 2008). Yet many adolescents and adults presenting with gender dysphoria do not report a history of childhood gender nonconforming behaviors (Docter, 1988; Landén, Wålinder, & Lundström, 1998). Therefore, it may come as a surprise to others (parents, other family members, friends, and community members) when a youth's gender dysphoria first becomes evident in adolescence.

Adolescents who experience their primary and/or secondary sex characteristics and their sex assigned at birth as inconsistent with their gender identity may be intensely distressed about it. Many, but not all, gender dysphoric adolescents have a strong wish for hormones and surgery. Increasing numbers of adolescents have already started living in their desired gender role upon entering high school (Cohen-Kettenis & Pfäfflin, 2003).

Among adolescents who are referred to gender identity clinics, the number considered eligible for early medical treatment – starting with GnRH analogues to suppress puberty in the first Tanner stages – differs among countries and centers. Not all clinics offer puberty suppression. If such treatment is offered, the pubertal stage at which adolescents are allowed to start varies from Tanner stage 2 to stage 4 (Delemarre-van de Waal & Cohen-Kettenis, 2006; Zucker et al., in press). The percentages of treated adolescents are likely influenced by the organization of health care, insurance aspects, cultural differences, opinions of health professionals, and diagnostic procedures offered in different settings.

Inexperienced clinicians may mistake indications of gender dysphoria for delusions. Phenomenologically, there is a qualitative difference between the presentation of gender dysphoria and the presentation of delusions or other psychotic symptoms. The vast majority of children and adolescents with gender dysphoria are not suffering from underlying severe psychiatric illness such as psychotic disorders (Steensma, Biemond, de Boer, & Cohen-Kettenis, published online ahead of print January 7, 2011).

It is more common for adolescents with gender dysphoria to have co-existing internalizing disorders such as anxiety and depression, and/or externalizing disorders such as oppositional defiant disorder (de Vries et al., 2010). As in children, there seems to be a higher prevalence of autistic spectrum disorders in clinically referred, gender dysphoric adolescents than in the general adolescent population (de Vries et al., 2010).

Competency of Mental Health Professionals Working with Children or Adolescents with Gender Dysphoria

The following are recommended minimum credentials for mental health professionals who assess, refer, and offer therapy to children and adolescents presenting with gender dysphoria:

1. Meet the competency requirements for mental health professionals working with adults, as outlined in section VII;
2. Trained in childhood and adolescent developmental psychopathology;
3. Competent in diagnosing and treating the ordinary problems of children and adolescents.

Roles of Mental Health Professionals Working with Children and Adolescents with Gender Dysphoria

The roles of mental health professionals working with gender dysphoric children and adolescents may include the following:

1. Directly assess gender dysphoria in children and adolescents (see general guidelines for assessment, below).
2. Provide family counseling and supportive psychotherapy to assist children and adolescents with exploring their gender identity, alleviating distress related to their gender dysphoria, and ameliorating any other psychosocial difficulties.
3. Assess and treat any co-existing mental health concerns of children or adolescents (or refer to another mental health professional for treatment). Such concerns should be addressed as part of the overall treatment plan.
4. Refer adolescents for additional physical interventions (such as puberty suppressing hormones) to alleviate gender dysphoria. The referral should include documentation of an assessment of gender dysphoria and mental health, the adolescent's eligibility for physical interventions (outlined below), the mental health professional's relevant expertise, and any other information pertinent to the youth's health and referral for specific treatments.
5. Educate and advocate on behalf of gender dysphoric children, adolescents, and their families in their community (e.g., day care centers, schools, camps, other organizations). This is particularly important in light of evidence that children and adolescents who do not conform to socially prescribed gender norms may experience harassment in school (Grossman, D'Augelli, & Salter, 2006; Grossman, D'Augelli, Howell, & Hubbard, 2006; Sausa, 2005), putting them at risk for social isolation, depression, and other negative sequelae (Nuttbrock et al., 2010).
6. Provide children, youth, and their families with information and referral for peer support, such as support groups for parents of gender nonconforming and transgender children (Gold & MacNish, 2011; Pleak, 1999; Rosenberg, 2002).

Assessment and psychosocial interventions for children and adolescents are often provided within a multi-disciplinary gender identity specialty service. If such a multidisciplinary service is not available, a mental health professional should provide consultation and liaison arrangements with a pediatric endocrinologist for the purpose of assessment, education, and involvement in any decisions about physical interventions.

Psychological Assessment of Children and Adolescents

When assessing children and adolescents who present with gender dysphoria, mental health professionals should broadly conform to the following guidelines:

1. Mental health professionals should not dismiss or express a negative attitude towards nonconforming gender identities or indications of gender dysphoria. Rather, they should acknowledge the presenting concerns of children, adolescents, and their families; offer a thorough assessment for gender dysphoria and any co-existing mental health concerns; and educate clients and their families about therapeutic options, if needed. Acceptance and removal of secrecy can bring considerable relief to gender dysphoric children/adolescents and their families.
2. Assessment of gender dysphoria and mental health should explore the nature and characteristics of a child's or adolescent's gender identity. A psychodiagnostic and psychiatric assessment – covering the areas of emotional functioning, peer and other social relationships, and intellectual functioning/school achievement – should be performed. Assessment should include an evaluation of the strengths and weaknesses of family functioning. Emotional and behavioral problems are relatively common, and unresolved issues in a child's or youth's environment may be present (de Vries, Doreleijers, Steensma, & Cohen-Kettenis, 2011; Di Ceglie & Thümmel, 2006; Wallien et al., 2007).
3. For adolescents, the assessment phase should also be used to inform youth and their families about the possibilities and limitations of different treatments. This is necessary for informed consent, but also important for assessment. The way that adolescents respond to information about the reality of sex reassignment can be diagnostically informative. Correct information may alter a youth's desire for certain treatment, if the desire was based on unrealistic expectations of its possibilities.

Psychological and Social Interventions for Children and Adolescents

When supporting and treating children and adolescents with gender dysphoria, health professionals should broadly conform to the following guidelines:

1. Mental health professionals should help families to have an accepting and nurturing response to the concerns of their gender dysphoric child or adolescent. Families play an important role in the psychological health and well-being of youth (Brill & Pepper, 2008; Lev, 2004). This also applies to peers and mentors from the community, who can be another source of social support.

2. Psychotherapy should focus on reducing a child's or adolescent's distress related to the gender dysphoria and on ameliorating any other psychosocial difficulties. For youth pursuing sex reassignment, psychotherapy may focus on supporting them before, during, and after reassignment. Formal evaluations of different psychotherapeutic approaches for this situation have not been published, but several counseling methods have been described (Cohen-Kettenis, 2006; de Vries, Cohen-Kettenis, & Delemarre-van de Waal, 2006; Di Ceglie & Thümmel, 2006; Hill, Menvielle, Sica, & Johnson, 2010; Malpas, in press; Menvielle & Tuerk, 2002; Rosenberg, 2002; Vanderburgh, 2009; Zucker, 2006).

Treatment aimed at trying to change a person's gender identity and expression to become more congruent with sex assigned at birth has been attempted in the past without success (Gelder & Marks, 1969; Greenson, 1964), particularly in the long term (Cohen-Kettenis & Kuiper, 1984; Pauly, 1965). Such treatment is no longer considered ethical.

1. Families should be supported in managing uncertainty and anxiety about their child's or adolescent's psychosexual outcomes and in helping youth to develop a positive self-concept.
2. Mental health professionals should not impose a binary view of gender. They should give ample room for clients to explore different options for gender expression. Hormonal or surgical interventions are appropriate for some adolescents, but not for others.
3. Clients and their families should be supported in making difficult decisions regarding the extent to which clients are allowed to express a gender role that is consistent with their gender identity, as well as the timing of changes in gender role and possible social transition. For example, a client might attend school while undergoing social transition only partly (e.g., by wearing clothing and having a hairstyle that reflects gender identity) or completely (e.g., by also using a name and pronouns congruent with gender identity). Difficult issues include whether and when to inform other people of the client's situation, and how others in their lives should respond.
4. Health professionals should support clients and their families as educators and advocates in their interactions with community members and authorities such as teachers, school boards, and courts.
5. Mental health professionals should strive to maintain a therapeutic relationship with gender nonconforming children/adolescents and their families throughout any subsequent social changes or physical interventions. This ensures that decisions about gender expression and the treatment of gender dysphoria are thoughtfully and recurrently considered. The same reasoning applies if a child or adolescent has already socially changed gender role prior to being seen by a mental health professional.

Social Transition in Early Childhood

Some children state that they want to make a social transition to a different gender role long before puberty. For some children, this may reflect an expression of their gender identity. For others, this could be motivated by other forces. Families vary in the extent to which they allow their young children to make a social transition to another gender role. Social transitions in early childhood do occur within some families with early success. This is a controversial issue, and divergent views are held by health professionals. The current evidence base is insufficient to predict the long-term outcomes of completing a gender role transition during early childhood. Outcomes research with children who completed early social transitions would greatly inform future clinical recommendations.

Mental health professionals can help families to make decisions regarding the timing and process of any gender role changes for their young children. They should provide information and help parents to weigh the potential benefits and challenges of particular choices. Relevant in this respect are the previously described relatively low persistence rates of childhood gender dysphoria (Drummond et al., 2008; Wallien & Cohen-Kettenis, 2008). A change back to the original gender role can be highly distressing and even result in postponement of this second social transition on the child's part (Steensma & Cohen-Kettenis, 2011). For reasons such as these, parents may want to present this role change as an exploration of living in another gender role, rather than an irreversible situation. Mental health professionals can assist parents in identifying potential in-between solutions or compromises (e.g., only when on vacation). It is also important that parents explicitly let the child know that there is a way back.

Regardless of a family's decisions regarding transition (timing, extent), professionals should counsel and support them as they work through the options and implications. If parents do not allow their young child to make a gender role transition, they may need counseling to assist them with meeting their child's needs in a sensitive and nurturing way, ensuring that the child has ample possibilities to explore gender feelings and behavior in a safe environment. If parents do allow their young child to make a gender role transition, they may need counseling to facilitate a positive experience for their child. For example, they may need support in using correct pronouns, maintaining a safe and supportive environment for their transitioning child (e.g., in school, peer group settings), and communicating with other people in their child's life. In either case, as a child nears puberty, further assessment may be needed as options for physical interventions become relevant.

Physical Interventions for Adolescents

Before any physical interventions are considered for adolescents, extensive exploration of psychological, family, and social issues should be undertaken, as outlined above. The duration of this exploration may vary considerably depending on the complexity of the situation.

Physical interventions should be addressed in the context of adolescent development. Some identity beliefs in adolescents may become firmly held and strongly expressed, giving a false impression of irreversibility. An adolescent's shift towards gender conformity can occur primarily to please the parents and may not persist or reflect a permanent change in gender dysphoria (Hembree et al., 2009; Steensma et al., published online ahead of print January 7, 2011).

Physical interventions for adolescents fall into three categories or stages (Hembree et al., 2009):

1. *Fully reversible interventions.* These involve the use of GnRH analogues to suppress estrogen or testosterone production and consequently delay the physical changes of puberty. Alternative treatment options include progestins (most commonly medroxyprogesterone) or other medications (such as spironolactone) that decrease the effects of androgens secreted by the testicles of adolescents who are not receiving GnRH analogues. Continuous oral contraceptives (or depot medroxyprogesterone) may be used to suppress menses.
2. *Partially reversible interventions.* These include hormone therapy to masculinize or feminize the body. Some hormone-induced changes may need reconstructive surgery to reverse the effect (e.g., gynaecomastia caused by estrogens), while other changes are not reversible (e.g., deepening of the voice caused by testosterone).
3. *Irreversible interventions.* These are surgical procedures.

A staged process is recommended to keep options open through the first two stages. Moving from one stage to another should not occur until there has been adequate time for adolescents and their parents to assimilate fully the effects of earlier interventions.

Fully Reversible Interventions

Adolescents may be eligible for puberty suppressing hormones as soon as pubertal changes have begun. In order for adolescents and their parents to make an informed decision about pubertal delay, it is recommended that adolescents experience the onset of puberty to at least Tanner Stage 2. Some children may arrive at this stage at very young ages (e.g., 9 years of age). Studies

evaluating this approach only included children who were at least 12 years of age (Cohen-Kettenis, Schagen, Steensma, de Vries, & Delemarre-van de Waal, 2011; de Vries, Steensma et al., 2010; Delemarre-van de Waal, van Weissenbruch, & Cohen Kettenis, 2004; Delemarre-van de Waal & Cohen-Kettenis, 2006).

Two goals justify intervention with puberty suppressing hormones: (i) their use gives adolescents more time to explore their gender nonconformity and other developmental issues; and (ii) their use may facilitate transition by preventing the development of sex characteristics that are difficult or impossible to reverse if adolescents continue on to pursue sex reassignment.

Puberty suppression may continue for a few years, at which time a decision is made to either discontinue all hormone therapy or transition to a feminizing/masculinizing hormone regimen. Pubertal suppression does not inevitably lead to social transition or to sex reassignment.

Criteria for puberty suppressing hormones

In order for adolescents to receive puberty suppressing hormones, the following minimum criteria must be met:

1. The adolescent has demonstrated a long-lasting and intense pattern of gender nonconformity or gender dysphoria (whether suppressed or expressed);
2. Gender dysphoria emerged or worsened with the onset of puberty;
3. Any co-existing psychological, medical, or social problems that could interfere with treatment (e.g., that may compromise treatment adherence) have been addressed, such that the adolescent's situation and functioning are stable enough to start treatment;
4. The adolescent has given informed consent and, particularly when the adolescent has not reached the age of medical consent, the parents or other caretakers or guardians have consented to the treatment and are involved in supporting the adolescent throughout the treatment process.

Regimens, monitoring, and risks for puberty suppression

For puberty suppression, adolescents with male genitalia should be treated with GnRH analogues, which stop luteinizing hormone secretion and therefore testosterone secretion. Alternatively, they may be treated with progestins (such as medroxyprogesterone) or with other medications that block testosterone secretion and/or neutralize testosterone action. Adolescents with female genitalia should be treated with GnRH analogues, which stop the production of estrogens and

progesterone. Alternatively, they may be treated with progestins (such as medroxyprogesterone). Continuous oral contraceptives (or depot medroxyprogesterone) may be used to suppress menses. In both groups of adolescents, use of GnRH analogues is the preferred treatment (Hembree et al., 2009), but their high cost is prohibitive for some patients

During pubertal suppression, an adolescent's physical development should be carefully monitored – preferably by a pediatric endocrinologist – so that any necessary interventions can occur (e.g., to establish an adequate gender appropriate height, to improve iatrogenic low bone marrow density) (Hembree et al., 2009).

Early use of puberty suppressing hormones may avert negative social and emotional consequences of gender dysphoria more effectively than their later use would. Intervention in early adolescence should be managed with pediatric endocrinological advice, when available. Adolescents with male genitalia who start GnRH analogues early in puberty should be informed that this could result in insufficient penile tissue for penile inversion vaginoplasty techniques (alternative techniques, such as the use of a skin graft or colon tissue, are available).

Neither puberty suppression nor allowing puberty to occur is a neutral act. On the one hand, functioning in later life can be compromised by the development of irreversible secondary sex characteristics during puberty and by years spent experiencing intense gender dysphoria. On the other hand, there are concerns about negative physical side effects of GnRH analog use (e.g., on bone development and height). Although the very first results of this approach (as assessed for adolescents followed over 10 years) are promising (Cohen-Kettenis et al., 2011; Delemarre-van de Waal & Cohen-Kettenis, 2006), the long-term effects can only be determined when the earliest treated patients reach the appropriate age.

Partially Reversible Interventions

Adolescents may be eligible to begin feminizing/masculinizing hormone therapy, preferably with parental consent. In many countries, 16-year-olds are legal adults for medical decision-making and do not require parental consent. Ideally, treatment decisions should be made among the adolescent, the family, and the treatment team.

Regimens for hormone therapy in gender dysphoric adolescents differ substantially from those used in adults (Hembree et al., 2009). The hormone regimens for youth are adapted to account for the somatic, emotional, and mental development that occurs throughout adolescence (Hembree et al., 2009).

Irreversible Interventions

Genital surgery should not be carried out until (i) patients reach the legal age of majority in a given country, and (ii) patients have lived continuously for at least 12 months in the gender role that is congruent with their gender identity. The age threshold should be seen as a minimum criterion and not an indication in and of itself for active intervention.

Chest surgery in FtM patients could be carried out earlier, preferably after ample time of living in the desired gender role and after one year of testosterone treatment. The intent of this suggested sequence is to give adolescents sufficient opportunity to experience and socially adjust in a more masculine gender role, before undergoing irreversible surgery. However, different approaches may be more suitable, depending on an adolescent's specific clinical situation and goals for gender identity expression.

Risks of Withholding Medical Treatment for Adolescents

Refusing timely medical interventions for adolescents might prolong gender dysphoria and contribute to an appearance that could provoke abuse and stigmatization. As the level of gender-related abuse is strongly associated with the degree of psychiatric distress during adolescence (Nuttbrock et al., 2010), withholding puberty suppression and subsequent feminizing or masculinizing hormone therapy is not a neutral option for adolescents.

Statement 12G:

The adolescent is the following age for each treatment:

14 years and above for hormone treatment (estrogens or androgens), unless there are significant, compelling reasons to take an individualized approach, considering the factors unique to the adolescent treatment frame.

15 years and above for chest masculinization; unless there are significant, compelling reasons to take an individualized approach, considering the factors unique to the adolescent treatment frame.

16 years and above for breast augmentation, facial surgery (including rhinoplasty, tracheal shave, and genioplasty) as part of gender affirming treatment; unless there are significant, compelling reasons to take an individualized approach, considering the factors unique to the adolescent treatment frame.

17 and above for metoidioplasty, orchidectomy, vaginoplasty, and hysterectomy and fronto-orbital remodeling as part of gender affirming treatment unless there are significant, compelling reasons to take an individualized approach, considering the factors unique to the adolescent treatment frame.

18 years or above for phalloplasty, unless there are significant, compelling reasons to take an individualized approach, considering the factors unique to the adolescent treatment frame.

The ages outlined above provide general guidance on the age at which gender affirming interventions may be considered. Age criteria should be considered in addition to other criteria outlined for gender affirming interventions in youth as outlined in statements 12 A-F. Individual needs, decision making capacity for the specific treatment being considered, and developmental stage (rather than age) are most relevant when determining timing of treatment decisions for individuals. Age has a strong correlation, though not perfect, with cognitive and psychosocial development and may be a useful objective marker in determining potential timing of interventions (Ferguson, Brunson, & Bradford, 2021). Higher (i.e., more advanced) ages are provided for treatments with greater irreversibility and/or complexity. This approach allows for continued cognitive/emotional maturation that may be required for the adolescent to fully consider and consent to increasingly complex treatments (See 12C).

Recommendations above are based on available evidence; expert consensus; and ethical considerations including, respect for the emerging autonomy of adolescents and minimizing harm in the setting of a limited evidence base. Historically, there has been hesitancy in the transgender healthcare setting to offer gender affirming treatments with potential irreversible effects to minors. The age criteria set forth in these guidelines are intended to facilitate youth's access to gender affirming treatments, and are younger than ages stipulated in previous guidelines (Coleman et al., 2012; Hembree et al., 2017). Importantly, for each gender affirming intervention being considered youth must communicate consent/assent and be able to demonstrate an understanding and appreciation of potential benefits and risks specific to the intervention (See statement 12C).