

1 A. Physical risks associated with transition

2 101. Sterilization. It is not uncommon for patients who begin down the path
3 defined by puberty blockers and social transition to end up feeling the need to
4 undergo surgical treatment to alleviate gender dysphoria. As I have noted above,
5 there is not good scientific evidence that SRS results in better long-term mental
6 health outcomes. What is certain, however, is that SRS that removes testes, ovaries,
7 or the uterus is inevitably sterilizing, and irreversible. While some patients who
8 have experienced regret after undergoing SRS have then undergone reconstructive
9 surgery, such surgery cannot restore fertility. And while by no means all
10 transgender adults elect SRS, many patients do ultimately feel compelled to take
11 this serious step in their effort to live fully as the opposite sex.
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14 102. More immediately, practitioners recognize that the administration of
15 cross-sex hormones, which is often viewed as a less “radical” measure, and is now
16 increasingly done to minors, creates at least a risk of irreversible sterility. The U.K.
17 High Court in the Tavistock litigation, after reviewing the evidence, concluded that
18 cross-sex hormones “may well lead to a loss of fertility,” and in my opinion that
19 finding accurately summarizes the present medical understanding.⁴⁸ As a result,
20 even when treating a child, the MHP, patient, and parents must consider loss of
21 reproductive capacity—sterilization—to be one of the major risks of starting down
22 the road. The risk that supporting social transition may put the child on a pathway
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26 ⁴⁸ *Bell v. Tavistock* Opinion (December 1, 2020), ¶138. *See also* C. Guss et al., *TGN Adolescent Care*
27 at 4 (“a side effect [of cross-sex hormones] may be infertility”) and 5 (“cross-sex hormones . . . may
have irreversible effects”); Tishelman et al., *Serving TG Youth* at 8 (Cross-sex hormones are
“irreversible interventions” with “significant ramifications for fertility”).

1 that leads to intentional or unintentional permanent sterilization is particularly
2 concerning given the disproportionate representation of minority and other
3 vulnerable groups among children reporting a transgender or gender-
4 nonconforming identity. (*See supra* ¶ 24.)

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6 103. Loss of sexual response. Puberty blockers prevent maturation of the
7 sexual organs and response. Some, and perhaps many, transgender individuals who
8 transitioned as children and thus did not go through puberty consistent with their
9 sex face significantly diminished sexual response as they enter adulthood and are
10 unable ever to experience orgasm. In the case of males, the cross-sex administration
11 of estrogen limits penile genital function. Much has been written about the negative
12 psychological and relational consequences of anorgasmia among non-transgender
13 individuals that is ultimately applicable to the transgendered. (Levine, *Informed*
14 *Consent*, at 6.)

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17 104. Other effects of hormone administration. I have discussed the risks
18 and unknowns associated with puberty blockers above, noting that most children
19 who are started on puberty blockers continue on the pathway to cross-sex hormones.
20 It is well known that many effects of cross-sex hormones cannot be reversed should
21 the patient later regret his transition. After puberty, the individual who wishes to
22 live as the opposite sex will in most cases have to take cross-sex hormones for most
23 of their life, even after undergoing sex reassignment surgery.
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1 105. The long-term health risks of this major alteration of hormonal levels
 2 have not yet been quantified in terms of exact risk.⁴⁹ However, a recent study found
 3 greatly elevated levels of strokes and other acute cardiovascular events among
 4 male-to-female transgender individuals taking estrogen. Those authors concluded,
 5 “it is critical to keep in mind that the risk for these cardiovascular events in this
 6 population must be weighed against the benefits of hormone treatment.”⁵⁰ Another
 7 group of authors similarly noted that administration of cross-sex hormones creates
 8 “an additional risk of thromboembolic events”—which is to say blood clots (Guss et
 9 al., *TGN Adolescent Care* at 5), which are associated with strokes, heart attacks,
 10 and lung and liver failure. Clinicians must distinguish the apparent short-term
 11 safety of hormones from likely or possible long-term consequences, and help the
 12 patient or parents understand these implications as well. The young patient may
 13 feel, “I don’t care if I die young, just as long I get to live as a woman.” The mature
 14 adult may take a different view.

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 18 106. Health risks inherent in complex surgery. Complications of surgery
 19 exist for each procedure,⁵¹ and complications in surgery affecting the reproductive
 20 organs and urinary tract can have significant anatomical and functional
 21 complications for the patient’s quality of life.
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 24 ⁴⁹ See Tishelman et al., *Serving TG Youth* at 6-7 (Long-term effect of cross-sex hormones “is an area where we currently have little research to guide us.”).

25 ⁵⁰ D. Getahun et al. (2018), *Cross-Sex Hormones and Acute Cardiovascular Events in Transgender Persons: A Cohort Study*, ANN. OF INTERN. MED. 169(4) 205 at 8.

26 ⁵¹ Levine, *Informed Consent*, at 5 (citing T. van de Grift, G. Pigot et al. (2017), *A Longitudinal Study of Motivations Before & Psychosexual Outcomes After Genital Gender-Confirming Surgery in Transmen*, J. SEXUAL MED.14(12) 1621).
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1 107. Disease and mortality generally. The MHP, the patient, and in the
2 case of a child, the parent must also be aware of the wide sweep of strongly negative
3 health outcomes among transgender individuals, as I have detailed above.

4 B. Social risks associated with transition

5 108. Family and friendship relationships. Gender transition routinely leads
6 to isolation from at least a significant portion of one's family in adulthood. In the
7 case of a juvenile transition, this will be less dramatic while the child is young, but
8 commonly increases over time as the child and his siblings mature into adulthood.
9 By adulthood, the friendships of transgender individuals tend to be confined to
10 other transgender individuals (often "virtual" friends known only online) and the
11 generally limited set of others who are comfortable interacting with transgender
12 individuals. (Levine, *Ethical Concerns*, at 5.)

13 109. Long term psychological and social impact of sterility. The life-long
14 negative emotional impact of infertility on both men and women has been well
15 studied. While this impact has not been studied specifically within the transgender
16 population, the opportunity to be a parent is likely a human, emotional need, and so
17 should be considered an important risk factor when considering gender transition
18 for any patient. However, it is particularly difficult for parents of a young child to
19 seriously contemplate that child's potential as a future parent and grandparent.
20 This makes it all the more critical that the MHP spend substantial and repeated
21 time with parents to help them see the implications of what they are considering.

22 110. Sexual-romantic risks associated with transition. After adolescence,
23 transgender individuals find the pool of individuals willing to develop a romantic
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1 and intimate relationship with them to be greatly diminished. When a trans person
 2 who passes well reveals his or her natal sex, many potential cisgender mates lose
 3 interest. When a trans person does not pass well, he discovers that the pool of those
 4 interested consists largely of individuals looking for exotic sexual experiences rather
 5 than genuinely loving relationships. (Levine, *Ethical Concerns*, at 5, 13.) Nor is the
 6 problem all on the other side; transgender individuals commonly become strongly
 7 narcissistic, unable to give the level of attention to the needs of another that is
 8 necessary to sustain a loving relationship.⁵²

10 111. Social risks associated with delayed puberty. The social and
 11 psychological impacts of remaining puerile for, e.g., three to five years while one's
 12 peers are undergoing pubertal transformations, and of undergoing puberty at a
 13 substantially older age, have not been systematically studied, although clinical
 14 mental health professionals often hear of distress and social awkwardness in those
 15 who naturally have a delayed onset of puberty. In my opinion, individuals in whom
 16 puberty is delayed multiple years are likely to suffer at least subtle negative
 17 psychosocial and self-confidence effects as they stand on the sidelines while their
 18 peers are developing the social relationships (and attendant painful social learning
 19 experiences) that come with adolescence. (Levine, *Informed Consent*, at 9.)

22 C. Mental health costs or risks

23 112. One would expect the negative physical and social impacts reviewed
 24 above to adversely affect the mental health of individuals who have transitioned. In
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 27 ⁵² S. Levine, *Barriers to Loving: A Clinician's Perspective* (Routledge, New York 2013) at 40.

1 addition, adult transitioned individuals find that living as the other (or, in a
2 manner that is consistent with the stereotypes of the other as the individual
3 perceives them) is a continual challenge and stressor, and many find that they
4 continue to struggle with a sense of inauthenticity in their transgender identity.
5 (Levine, *Informed Consent*, at 9.)
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7 113. In addition, individuals often pin excessive hope in transition,
8 believing that transition will solve what are in fact ordinary social stresses
9 associated with maturation, or mental health co-morbidities. Thus, transition can
10 result in deflection from mastering personal challenges at the appropriate time or
11 addressing conditions that require treatment.
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13 114. Whatever the reason, transgender individuals including transgender
14 youth certainly experience greatly increased rates of mental health problems. I have
15 detailed this above with respect to adults living under a transgender identity.
16 Indeed, Swedish researchers in a long-term study (up to 30 years since SRS, with a
17 median time since SRS of > 10 years) concluded that individuals who have SRS
18 should have postoperative lifelong psychiatric care. (Dhejne, *Long Term*, at 6-7.)
19 With respect to youths a cohort study found that transgender youth had an elevated
20 risk of depression (50.6% vs. 20.6%) and anxiety (26.7% vs. 10.0%); a higher risk of
21 suicidal ideation (31.1% vs. 11.1%), suicide attempts (17.2% vs. 6.1%), and self-harm
22 without lethal intent (16.7% vs. 4.4%) relative to the matched controls; and a
23 significantly greater proportion of transgender youth accessed inpatient mental
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1 health care (22.8% vs. 11.1%) and outpatient mental health care (45.6% vs. 16.1%)
 2 services.⁵³

3 115. The responsible MHP cannot focus narrowly on the short-term
 4 happiness of the patient, but must instead consider the happiness and health of the
 5 patient from a “life course” perspective. The many studies that I have cited here
 6 warn us that as we look ahead to the patient’s life as a young adult and adult, the
 7 prognosis for the physical health, mental health, and social well-being of the child
 8 or adolescent who transitions to live in a transgender identity is not good.

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 10 116. A study published in 2019 by the American Journal of Psychiatry
 11 reported the high mental health utilization patterns of adults for ten years after
 12 surgery for approximately 35% of patients.⁵⁴ That is a very high level of mental
 13 health distress, compared to the general population.

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 15 117. This same 2019 study received considerable attention for its claim to
 16 discern “a statistically significant relationship between time since surgery and
 17 mental health status” based upon the researchers observing “that as of 2015,
 18 patients who had surgeries further in the past had better mental health than
 19 patients whose surgeries were more recent.”⁵⁵ But this claim is another example of
 20 the grave methodological defects that are too common in recent publications in this
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 23 ⁵³ S. Reisner et al. (2015), *Mental Health of Transgender Youth in Care at an Adolescent Urban*
 24 *Community Health Center: A Matched Retrospective Cohort Study*, J. OF ADOLESCENT HEALTH 56(3)
 at 6; see also supra ¶ 24.

25 ⁵⁴ Bränström & Pachankis, (2019), *Reduction in Mental Health Treatment Utilization Among*
 26 *Transgender Individuals After Gender-Affirming Surgeries*, AM. J. OF PSYCHIATRY 177(8) 727-734.

27 ⁵⁵ *Correction of a Key Study: No Evidence of “Gender-Affirming” Surgeries Improving Mental Health*,
 Society for Evidence Based Gender Medicine (Aug. 30, 2020), https://www.segm.org/ajp_correction_2020 (citing and summarizing professional critiques of the *Reduction* article).

1 field. Shortly after publication, the study's analysis and conclusion were trenchantly
 2 criticized, among other reasons because of the study's failure to compare subjects'
 3 post-surgery mental health with those subjects' mental health *before* undergoing
 4 SRS.

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 6 118. As a result of two post-publication reviews by independent statisticians
 7 that rejected the interpretation of the data and additional critical letters to the
 8 editor, the authors corrected the article to retract the claim of a statistically
 9 significant relationship between gender affirmation surgery and later-improved
 10 mental health (while leaving intact a finding of "no evidence of benefits of hormonal
 11 treatments"). Specifically, the American Journal of Psychiatry stated that "the
 12 results [of the reanalysis] demonstrated no advantage of surgery in relation to
 13 subsequent mood or anxiety disorder-related health care visits or prescriptions or
 14 hospitalizations following suicide attempts."⁵⁶

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 17 119. The *Reduction* article is notable for another, and positive, reason, as its
 18 authors acknowledged valid critiques and corrected the claims in their published
 19 work.⁵⁷ This is the way science should work—contending views testing the data and
 20 conclusions—something that is increasingly difficult to do in the gender identity
 21 field when its advocates insist that only gender affirmation treatments are to be
 22 contemplated.

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 25 ⁵⁶Correction to Bränström and Pachankis (2020), AM. J. OF PSYCHIATRY 177:8 at 734.

26 ⁵⁷R. Bränström and J. E. Pachankis (2020), *Toward Rigorous Methodologies for Strengthening*
 27 *Causal Inference in the Association Between Gender-Affirming Care and Transgender Individuals'*
Mental Health: Response to Letters, 177 AM. J. OF PSYCHIATRY 769-772.

1 D. The risk of regret following transition

2 120. The large numbers of children and young adults who have desisted as
3 documented in both group and case studies each represent “regret” over the initial
4 choice in some sense.

5 121. The phenomenon of desistance or regret experienced *later* than
6 adolescence or young adulthood, or among older transgender individuals, has to my
7 knowledge not been quantified or well-studied. However, it is a real phenomenon. I
8 myself have worked with multiple individuals who have abandoned trans female
9 identity after living in that identity for years, and who would describe their
10 experiences as “regret.”
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12 122. I have seen several Massachusetts inmates and trans individuals in
13 the community abandon their [trans] female identity after several years. (Levine,
14 *Reflections*, at 239.) In the gender clinic which I founded in 1974 and to this day, in
15 a different location, continue to co-direct, we have seen many instances of
16 individuals who claimed a transgender identity for a time, but ultimately changed
17 their minds and reclaimed the gender identity congruent with their sex.
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19 123. More dramatically, a surgical group prominently active in the SRS
20 field has published a report on a series of seven male-to-female patients requesting
21 surgery to transform their surgically constructed female genitalia back to a male
22 form.⁵⁸
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27 ⁵⁸ Djordjevic et al. (2016), *Reversal Surgery in Regretful Male-to-Female Transsexuals After Sex Reassignment Surgery*, J. SEX MED. 13(6) 1000.

1 124. I noted above an increasingly visible online community of young
2 women who have desisted after claiming a male gender identity at some point
3 during their teen years. (See *supra* ¶ 58.) Given the rapid increase in the number of
4 girls presenting to gender clinics within the last few years, the phenomena of regret
5 and desistance by young women deserves careful attention and study by MHPs.
6 (See Expósito-Campos, 2021.)
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8 125. Thus, one cannot assert with any degree of certainty that once a
9 transgendered person, always a transgendered person, whether referring to a child,
10 adolescent, or adult, male or female.
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12 I, Dr. Stephen B. Levine, hereby declare under penalty of perjury that
13 the statements in this affidavit are true and accurate to the best of my
14 knowledge, and represent my professional opinions.

15
16 By: Stephen B. Levine MD
Dr. Stephen B. Levine

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18 Subscribed and sworn to before me
this 10th day of May, 2021.

19
20 Mary J. Mizner
21 Notary Public, State of Ohio
My Commission expires 3/9/25



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Expert Decl. of Dr. Stephen B. Levine
in Supp. of MPI
Civil No. _____

Curriculum Vita
Stephen B. Levine, M.D.

I) **Brief Introduction**

Dr. Levine is Clinical Professor of Psychiatry at Case Western Reserve University School of Medicine. He is the solo author of five books, Sex Is Not Simple in 1989 (translated to German in 1992 and reissued in English in 1997 as Solving Common Sexual Problems); Sexual Life: A clinician's guide in 1992; Sexuality in Midlife in 1998 and Demystifying Love: Plain talk for the mental health professional in 2006; Barriers to Loving: A clinician's perspective in 2013; Psychotherapeutic Approaches to Sexual Problems: An Essential Guide for Mental Health Professionals in 2020. He is the Senior Editor of the first (2003), second (2010) and third (2016) editions of the Handbook of Clinical Sexuality for Mental Health Professionals. He has been teaching, providing clinical care, and writing since 1973 and has generated original research, invited papers, commentaries, chapters, and book reviews. He has served as a journal manuscript and book prospectus reviewer for many years. He was co-director of the Center for Marital and Sexual Health/ Levine, Risen & Associates, Inc. in Beachwood, Ohio from 1992-2017. He and two colleagues received a lifetime achievement Masters and Johnson's Award from the Society for Sex Therapy and Research in March 2005. He was given his Department of Psychiatry's Hall of Fame Award in 2021.

II) **Personal Information**

- A) Date of birth 1942
- B) Medical license no. Ohio 35-03-0234-L
- C) Board Certification 6/76 American Board of Neurology and Psychiatry
- D) Office-23425 Commerce Park, Beachwood, Ohio 44122-5402 phone 216-831-2900
x 13 fax 216-831-4306

III) **Education**

- A) 1963 BA Washington and Jefferson College
- B) 1967 MD Case Western Reserve University School of Medicine
- C) 1967-68 internship in Internal Medicine University Hospitals of Cleveland
- D) 1968-70 Research associate, National Institute of Arthritis and Metabolic Diseases, Epidemiology Field Studies Unit, Phoenix, Arizona, United States Public Health Service
- E) 1970-73 Psychiatric Residency, University Hospitals of Cleveland
- F) 1974-77 Robert Wood Johnson Foundation Clinical Scholar

IV) **Appointments at Case Western Reserve University School of Medicine**

- A) 1973- Assistant Professor of Psychiatry
- B) 1979-Associate Professor
- C) 1982-Tenure
- D) 1985-Full Professor
- E) 1993-Clinical Professor

V) **Honors**

- A) Summa Cum Laude, Washington & Jefferson