

EXHIBIT 40
REDACTED

CHAPTER 18 Mental Health

This chapter is intended to provide guidance to health care professionals (HCPs) and mental health professionals (MHPs) who offer mental health care to transgender and gender diverse (TGD) adults. It is not meant to be a substitute for chapters on the assessment or evaluation of people for hormonal or surgical interventions. Many TGD people will not require therapy or other forms of mental health care as part of their transition, while others may benefit from the support of mental health providers and systems (Dhejne et al., 2016).

Some studies have shown a higher prevalence of depression (Witcomb et al., 2018), anxiety (Bouman et al., 2017), and suicidality (Arcelus et al., 2016; Bränström & Pachankis, 2022; Davey et al., 2016; Dhejne, 2011; Herman et al., 2019) among TGD people (Jones et al., 2019; Thorne, Witcomb et al., 2019) than in the general population, particularly in those requiring medically necessary gender-affirming medical treatment (see medically necessary statement in Chapter 2—Global Applicability, Statement 2.1). However, transgender identity is not a mental illness, and these elevated rates have been linked to complex trauma, societal stigma, violence, and discrimination (Nuttbrock

et al., 2014; Peterson et al., 2021). In addition, psychiatric symptoms lessen with appropriate gender-affirming medical and surgical care (Aldridge et al., 2020; Almazan and Keuroghlian, 2021; Bauer et al., 2015; Grannis et al., 2021) and with interventions that lessen discrimination and minority stress (Bauer et al., 2015; Heylens, Verroken et al., 2014; McDowell et al., 2020).

Mental health treatment needs to be provided by staff and implemented through the use of systems that respect patient autonomy and recognize gender diversity. MHPs working with transgender people should use active listening as a method to encourage exploration in individuals who are uncertain about their gender identity. Rather than impose their own narratives or preconceptions, MHPs should assist their clients in determining their own paths. While many transgender people require medical or surgical interventions or seek mental health care, others do not (Margulies et al., 2021). Therefore, findings from research involving clinical populations should not be extrapolated to the entire transgender population.

Addressing mental illness and substance use disorders is important but should not be a barrier to transition-related care. Rather, these interventions to address mental health and substance use disorders can facilitate successful outcomes from

Statements of Recommendations

- 18.1- We recommend mental health professionals address mental health symptoms that interfere with a person's capacity to consent to gender-affirming treatment before gender-affirming treatment is initiated.
- 18.2- We recommend mental health professionals offer care and support to transgender and gender diverse people to address mental health symptoms that interfere with a person's capacity to participate in essential perioperative care before gender-affirmation surgery.
- 18.3- We recommend when significant mental health symptoms or substance abuse exists, mental health professionals assess the potential negative impact that mental health symptoms may have on outcomes based on the nature of the specific gender-affirming surgical procedure.
- 18.4- We recommend health care professionals assess the need for psychosocial and practical support of transgender and gender diverse people in the perioperative period surrounding gender-affirmation surgery.
- 18.5- We recommend health care professionals counsel and assist transgender and gender diverse people in becoming abstinent from tobacco/nicotine prior to gender-affirmation surgery.
- 18.6- We recommend health care professionals maintain existing hormone treatment if a transgender and gender diverse individual requires admission to a psychiatric or medical inpatient unit, unless contraindicated.
- 18.7- We recommend health care professionals ensure if transgender and gender diverse people need in-patient or residential mental health, substance abuse or medical care, all staff use the correct name and pronouns (as provided by the patient), as well as provide access to bathroom and sleeping arrangements that are aligned with the person's gender identity.
- 18.8- We recommend mental health professionals encourage, support, and empower transgender and gender diverse people to develop and maintain social support systems, including peers, friends, and families.
- 18.9- We recommend health care professionals should not make it mandatory for transgender and gender diverse people to undergo psychotherapy prior to the initiation of gender-affirming treatment, while acknowledging psychotherapy may be helpful for some transgender and gender diverse people.
- 18.10- We recommend "reparative" and "conversion" therapy aimed at trying to change a person's gender identity and lived gender expression to become more congruent with the sex assigned at birth should not be offered.



transition-related care, which can improve quality of life (Nobili et al., 2018).

All the statements in this chapter have been recommended based on a thorough review of evidence, an assessment of the benefits and harms, values and preferences of providers and patients, and resource use and feasibility. In some cases, we recognize evidence is limited and/or services may not be accessible or desirable.

Statement 18.1

We recommend mental health professionals address mental health symptoms that interfere with a person's capacity to consent to gender-affirming treatment before gender-affirming treatment is initiated.

Because patients generally are assumed to be capable of providing consent for care, whether the presence of cognitive impairment, psychosis, or other mental illness impairs the ability to give informed consent is subject to individual examination (Applebaum, 2007). Informed consent is central to the provision of health care. The health care provider must educate the patient about the risks, benefits, and alternatives to any care that is offered so the patient can make an informed, voluntary choice (Berg et al., 2001). Both the primary care provider or endocrinologist prescribing hormones and the surgeon performing surgery must obtain informed consent. Similarly, MHPs obtain informed consent for mental health treatment and may consult on a patient's capacity to give informed consent when this is in question. Psychiatric illness and substance use disorders, in particular cognitive impairment and psychosis, may impair an individual's ability to understand the risks and benefits of the treatment (Hostiuc et al., 2018). Conversely, a patient may also have significant mental illness, yet still be able to understand the risks and benefits of a particular treatment (Carpenter et al., 2000). Multidisciplinary communication is important in challenging cases, and expert consultation should be utilized as needed (Karasic & Fraser, 2018). For many patients, difficulty understanding the risks and benefits of a particular treatment can be overcome with time and careful explanation. For some patients, treatment of the underlying condition that is interfering with the capacity to

give informed consent—for example treating an underlying psychosis—will allow the patient to gain the capacity to consent to the required treatment. However, mental health symptoms such as anxiety or depressive symptoms that do not affect the capacity to give consent should not be a barrier for gender-affirming medical treatment, particularly as this treatment has been found to reduce mental health symptomatology (Aldridge et al., 2020).

Statement 18.2

We recommend mental health professionals offer care and support to transgender and gender diverse people to address mental health symptoms that interfere with a person's capacity to participate in essential perioperative care before gender-affirmation surgery.

The inability to adequately participate in perioperative care due to mental illness or substance use should not be viewed as an obstacle to needed transition care, but should be seen as an indication mental health care and social support be provided (Karasic, 2020). Mental illness and substance use disorders may impair the ability of the patient to participate in perioperative care (Barnhill, 2014). Visits to health care providers, wound care, and other aftercare procedures (e.g., dilation after vaginoplasty) may be necessary for a good outcome. A patient with a substance use disorder might have difficulty keeping necessary appointments to the primary care provider and the surgeon. A patient with psychosis or severe depression might neglect their wound or not be attentive to infection or signs of dehiscence (Lee, Marsh et al., 2016). Active mental illness is associated with a greater need for further acute medical and surgical care after the initial surgery (Wimalawansa et al., 2014).

In these cases, treatment of the mental illness or substance use disorder may assist in achieving successful outcomes. Arranging more support for the patient from family and friends or a home health care worker may help the patient participate sufficiently in perioperative care for surgery to proceed. The benefits of mental health treatments that may delay surgery should be weighed against the risks of delaying surgery and should

include an assessment of the impact on the patients' mental health delays may cause in addressing gender dysphoria (Byne et al., 2018).

Statement 18.3

We recommend when significant mental health symptoms or substance abuse exists, mental health professionals assess the potential negative impact mental health symptoms may have on outcomes based on the nature of the specific gender-affirming surgical procedure.

Gender-affirming surgical procedures vary in terms of their impact on the patient. Some procedures require a greater ability to follow preoperative planning as well as engage in peri- and postoperative care to achieve the best outcomes (Tollinche et al., 2018). Mental health symptoms can influence a patient's ability to participate in the planning and perioperative care necessary for any surgical procedure (Paredes et al., 2020). The mental health assessment can provide an opportunity to develop strategies to address the potential negative impact mental health symptoms may have on outcomes and to plan support for the patient's ability to participate in the planning and care. Gender-affirming surgical procedures have been shown to relieve symptoms of gender dysphoria and improve mental health (Owen-Smith et al., 2018; van de Grift, Elaut et al., 2017). These benefits are weighed against the risks of each procedure when the patient and provider are deciding whether to proceed with the treatment. HCPs can assist TGD people in reviewing preplanning and perioperative care instructions for each surgical procedure (Karasic, 2020). Provider and patient can collaboratively determine the necessary support or resources needed to assist with keeping appointments for perioperative care, obtaining necessary supplies, addressing financial issues, and handling other preoperative coordination and planning. In addition, issues surrounding appearance-related and functional expectations, including the impact of these various factors on gender dysphoria, can be explored.

Statement 18.4

We recommend health care professionals assess the need for psychosocial and practical support

of transgender and gender diverse people in the perioperative period surrounding gender-affirmation surgery.

Regardless of specialty, all HCPs have a responsibility to support patients in accessing medically necessary care. When HCPs are working with TGD people as they prepare for gender-affirming surgical procedures, they should assess the levels of psychosocial and practical support required (Deutsch, 2016b). Assessment is the first step in recognizing where additional support may be needed and enhancing the ability to work collaboratively with the individual to successfully navigate the pre-, peri-, and postsurgical periods (Tollinche et al., 2018). In the perioperative period, it is important to help patients optimize functioning, secure stable housing, when possible, build social and family supports by assessing their unique situation, plan ways of responding to medical complications, navigate the potential impact on work/income, and overcome additional hurdles some patients may encounter, such as coping with electrolysis and tobacco cessation (Berli et al., 2017). In a complex medical system, not all patients will be able to independently navigate the procedures required to obtain care, and HCPs and peer navigators can support patients through this process (Deutsch, 2016a).

Statement 18.5

We recommend health care professionals counsel and assist transgender and gender diverse people in becoming abstinent from tobacco/nicotine prior to gender-affirmation surgery.

Transgender populations have higher rates of tobacco and nicotine use (Kidd et al., 2018). However, many are unaware of the well-documented smoking-associated health risks (Bryant et al., 2014). Tobacco consumption increases the risk of developing health problems (e.g., thrombosis) in individuals receiving gender-affirming hormone treatment, particularly estrogens (Chipkin & Kim, 2017).

Tobacco use has been associated with worse outcomes in plastic surgery, including overall complications, tissue necrosis, and the need for surgical revision (Coon et al., 2013). Smoking also increases the risk for postoperative infection (Kaoutzanis et al., 2019). Tobacco use has been shown to affect

the healing process following any surgery, including gender-related surgeries (e.g., chest reconstructive surgery, genital surgery) (Pluvy, Garrido et al., 2015). Tobacco users have a higher risk of cutaneous necrosis, delayed wound healing, and scarring disorders due to hypoxia and tissue ischemia (Pluvy, Panouilleres et al., 2015). In view of this, surgeons recommend stopping the use of tobacco/nicotine prior to gender-affirmation surgery and abstaining from smoking up to several weeks post-operatively until the wound has completely healed (Matei & Danino, 2015). Despite the risks, cessation may be difficult. Tobacco smoking and nicotine use is addictive and is also used as a coping mechanism (Matei et al., 2015). HCPs who see patients longitudinally before surgery, including mental health and primary care providers, should address the use of tobacco/nicotine with individuals in their care, and either assist TGD people in accessing smoking cessation programs or provide treatment directly (e.g., varenicline or bupropion).

Statement 18.6

We recommend health care professionals maintain existing hormone treatment if a transgender and gender diverse individual requires admission to a psychiatric or medical inpatient unit, unless contraindicated.

TGD people entering inpatient psychiatric, substance use treatment, or medical units should be maintained on their current hormone regimens. There is an absence of evidence supporting routine cessation of hormones prior to medical or psychiatric admissions. Rarely, a newly admitted patient may be diagnosed with a medical complication necessitating suspension of hormone treatment, for example an acute venous thromboembolism (Deutsch, 2016a). There is no strong evidence for routinely stopping hormone treatment prior to surgery, and the risks and benefits for each individual patient should be assessed before doing so (Boskey et al., 2018).

Hormone treatment has been shown to improve quality of life and to decrease depression and anxiety (Aldridge et al., 2020; Nguyen et al., 2018; Nobili et al., 2018; Owen-Smith et al., 2018, Rowniak et al., 2019). Access to gender-affirming medical treatment is associated with a substantial reduction in the risk of suicide attempt (Bauer

et al., 2015). Halting a patient's regularly prescribed hormones denies the patient of these salutary effects, and therefore may be counter to the goals of hospitalization.

Some providers may be unaware of the low risk of harm and the high potential benefit of continuing transition-related treatment in the inpatient setting. A study of US and Canadian medical schools revealed that students received an average of 5 hours of LGBT-related course content over their entire four years of education (Obedin-Maliver et al., 2011). According to a survey of Emergency Medicine physicians, who are often responsible for making quick decisions about medications as patients are being admitted, while 88% reported caring for transgender patients, only 17.5% had received any formal training about this population (Chisolm-Straker et al., 2018). As education about transgender topics increases, more providers will become aware of the importance of maintaining transgender patients on their hormone regimens during hospitalization.

Statement 18.7

We recommend health care professionals ensure if transgender and gender diverse people need inpatient or residential mental health, substance abuse, or medical care, all staff use the correct name and pronouns (as provided by the patient), as well as provide access to bathroom and sleeping arrangements that are aligned with the person's gender identity.

Many TGD patients encounter discrimination in a wide range of health settings, including hospitals, mental health treatment settings, and drug treatment programs (Grant et al., 2011). When health systems fail to accommodate TGD individuals, they reinforce the longstanding societal exclusion many have experienced (Karasic, 2016). Experiences of discrimination in health settings lead to avoidance of needed health care due to anticipated discrimination (Kcomt et al., 2020).

The experience of discrimination experienced by TGD individuals is predictive of suicidal ideation (Rood et al., 2015; Williams et al., 2021). Gender minority stress associated with rejection and nonaffirmation has also been associated with suicidality (Testa et al., 2017). Denial of access to gender appropriate bathrooms has been

associated with increased suicidality (Seelman, 2016). However, the use of chosen names for TGD people has been associated with lower depression and suicidality (Russell et al., 2018). Structural as well as internalized transphobia must be addressed to reduce the incidence of suicide attempts in TGD people (Brumer et al., 2015). To successfully provide care, health settings must minimize the harm done to patients because of transphobia by respecting and accommodating TGD identities.

Statement 18.8

We recommend mental health professionals encourage, support, and empower transgender and gender diverse people to develop and maintain social support systems, including peers, friends, and families.

While minority stress and the direct effects of discriminatory societal discrimination can be harmful to the mental health of TGD people, strong social support can help lessen this harm (Trujillo et al., 2017). TGD children often internalize rejection from family and peers as well as the transphobia that surrounds them (Amodeo et al., 2015). Furthermore, exposure to transphobic abuse may be impactful across a person's lifespan and may be particularly acute during the adolescent years (Nuttbrock et al., 2010).

The development of affirming social support is protective of mental health. Social support can act as a buffer against the adverse mental health consequences of violence, stigma, and discrimination (Bockting et al., 2013), can assist in navigating health systems (Jackson Levin et al., 2020), and can contribute to psychological resilience in TGD people (Bariola et al., 2015; Başar and Öz, 2016). Diverse sources of social support, especially LGBTQ+ peers and family, have been found to be associated with better mental health outcomes, well-being, and quality of life (Bariola et al., 2015; Başar et al., 2016; Kuper, Adams et al., 2018; Puckett et al., 2019). Social support has been proposed to facilitate the development of coping mechanisms and lead to positive emotional experiences throughout the transition process (Budge et al., 2013).

HCPs can support patients in developing social support systems that allow them to be recognized

and accepted as their authentic identity and help them cope with symptoms of gender dysphoria. Interpersonal problems and lack of social support have been associated with a greater incidence of mental health difficulties in TGD people (Bouman, Davey et al., 2016; Davey et al., 2015) and have been shown to be an outcome predictor of gender-affirming medical treatment (Aldridge et al., 2020). Therefore, HCPs should encourage, support, and empower TGD people to develop and maintain social support systems. These experiences can foster the development of interpersonal skills and help with coping with societal discrimination, potentially reducing suicidality and improving mental health (Pflum et al., 2015).

Statement 18.9

We recommend health care professionals should not make it mandatory for transgender and gender diverse people to undergo psychotherapy prior to the initiation of gender-affirming treatment, while acknowledging psychotherapy may be helpful for some transgender and gender diverse people.

Psychotherapy has a long history of being used in clinical work with TGD people (Fraser, 2009b). The aims, requirements, methods and principles of psychotherapy have been an evolving component of the Standards of Care from the initial versions (Fraser, 2009a). At present, psychotherapeutic assistance and counseling with adult TGD people may be sought to address common psychological concerns related to coping with gender dysphoria and may also help some individuals with the coming-out process (Hunt, 2014). Psychological interventions, including psychotherapy, offer effective tools and provide context for the individual, such as exploring gender identity and its expression, enhancing self-acceptance and hope, and improving resilience in hostile and disabling environments (Matsuno and Israel, 2018). Psychotherapy is an established alternative therapeutic approach for addressing mental health symptoms that may be revealed during the initial assessment or later during the follow-up for gender-affirming medical interventions. Recent research shows, although mental health symptoms are reduced following gender-affirming medical treatment, levels of anxiety remain high (Aldridge et al., 2020) suggesting psychological therapy can play a role in helping

individuals suffering from anxiety symptoms following gender-affirming treatment.

In recent years, the uses and potential benefits of specific psychotherapeutic modalities have been reported (Austin et al., 2017; Budge, 2013; Budge et al., 2021; Embaye, 2006; Fraser, 2009b; Heck et al., 2015). Specific models of psychotherapy have been proposed for adult transgender and nonbinary individuals (Matsuno & Israel, 2018). However, more empiric data is needed on the comparative benefits of different psychotherapeutic models (Catelan et al., 2017). Psychotherapy can be experienced by transgender persons as a fearful as well as a beneficial experience (Applegarth & Nuttall, 2016) and presents challenges to the therapist and to alliance formation when it is associated with gatekeeping for medical interventions (Budge, 2015).

Experience suggests many transgender and nonbinary individuals decide to undergo gender-affirming medical treatment with little or no use of psychotherapy (Spanos et al., 2021). Although various modalities of psychotherapy may be beneficial for different reasons before, during, and after gender-affirming medical treatments and varying rates of desire for psychotherapy have been reported during different stages of transition (Mayer et al., 2019), a requirement for psychotherapy for initiating gender-affirming medical procedures has not been shown to be beneficial and may be a harmful barrier to care for those who do not need this type of treatment or who lack access to it.

Statement 18.10

We recommend “reparative” and “conversion” therapy aimed at trying to change a person’s gender identity and lived gender expression to become more congruent with the sex assigned at birth should not be offered.

The use of “reparative” or “conversion” therapy or gender identity “change” efforts is opposed

by many major medical and mental health organizations across the world, including the World Psychiatric Association, Pan American Health Organization, American Psychiatric and American Psychological Associations, Royal College of Psychiatrists, and British Psychological Society. Many states in the US have instituted bans on practicing conversion therapy with minors. Gender identity change efforts refers to interventions by MHPs or others that attempt to change gender identity or expression to be more in line with those typically associated with the person’s sex assigned at birth (American Psychological Association, 2021).

Advocates of “conversion therapy” have suggested it could potentially allow a person to fit better into their social world. They also point out some clients specifically ask for help changing their gender identities or expressions and therapists should be allowed to help clients achieve their goals. However, “conversion therapy” has not been shown to be effective (APA, 2009; Przeworski et al., 2020). In addition, there are numerous potential harms. In retrospective studies, a history of having undergone conversion therapy is linked to increased levels of depression, substance abuse, suicidal thoughts, and suicide attempts, as well as lower educational attainment and less weekly income (Ryan et al., 2020; Salway et al., 2020; Turban, Beckwith et al., 2020). In 2021, the American Psychological Association resolutions states that “scientific evidence and clinical experience indicate that GICEs [gender identity change efforts] put individuals at significant risk of harm” (APA, 2021).

While there are barriers to ending gender identity “change” efforts, education about the lack of benefit and the potential harm of these practices may lead to fewer providers offering “conversion therapy” and fewer individuals and families choosing this option.

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Conflict of Interest

Conflict of interests were reviewed as part of the selection process for committee members and at the end of the process before publication. No conflicts of interest were deemed significant or consequential.

Ethical Approval

This manuscript does not contain any studies with human participants performed by any of the authors.

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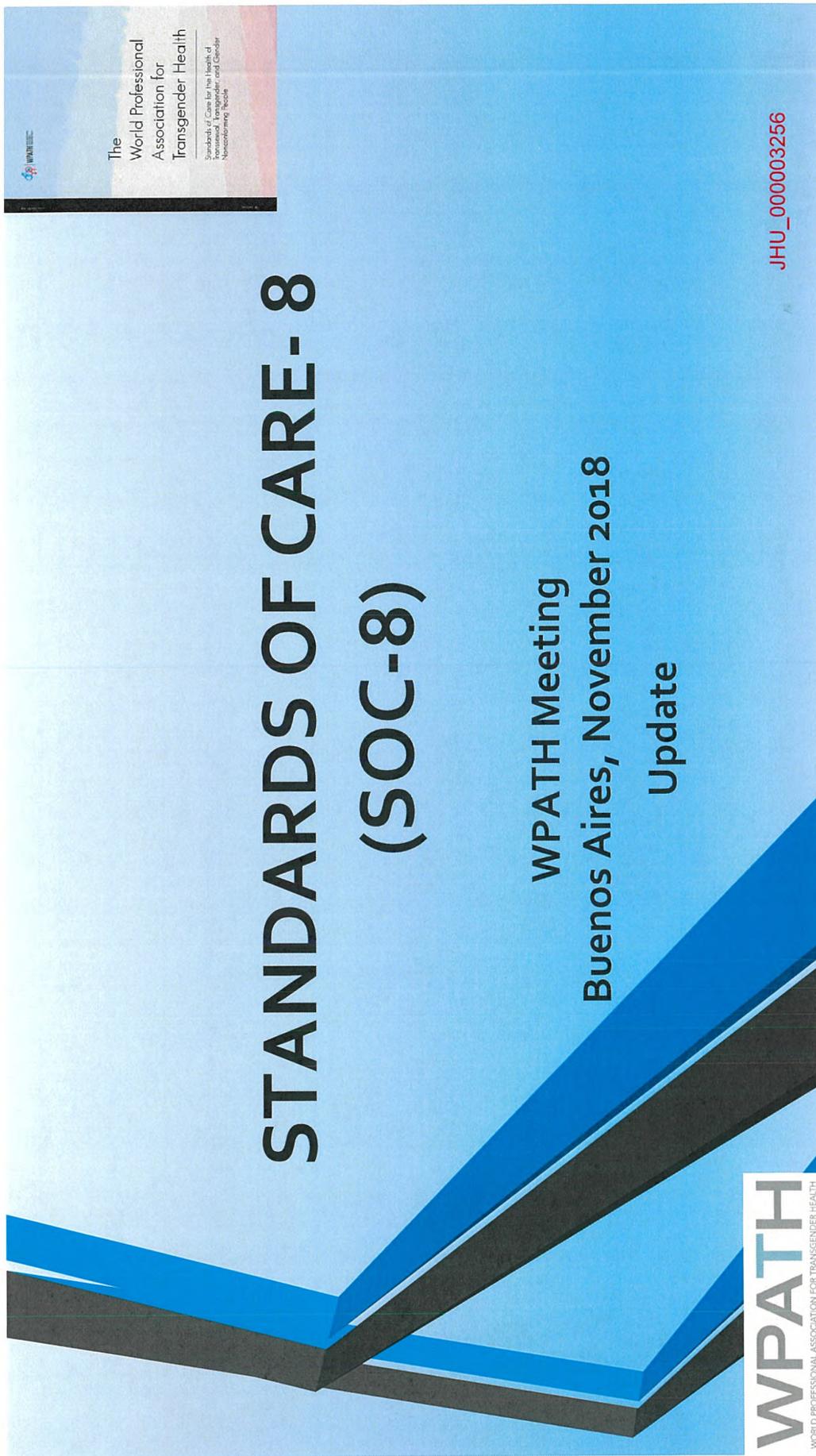


EXHIBIT 2
 WIT: KARASIC
 DATE: 5-7-24
 CARLA SOARES, CSR

INTRODUCTION

- **Chair:** Eli Coleman, USA
- **Co-Chairs:**
 - Asa Radix, USA
 - Jon Arcelus, UK

JHU_0000003257



What is a Guideline?

“Guidelines are recommendations intended to assist providers and recipients of health care and other stakeholders to make informed decisions”

World Health Organization

JHU_000003258

Hierarchy of Evidence



<http://sciencedrivennutrition.com/science-in-fitness/>

How do we move from questions to guidelines creation?

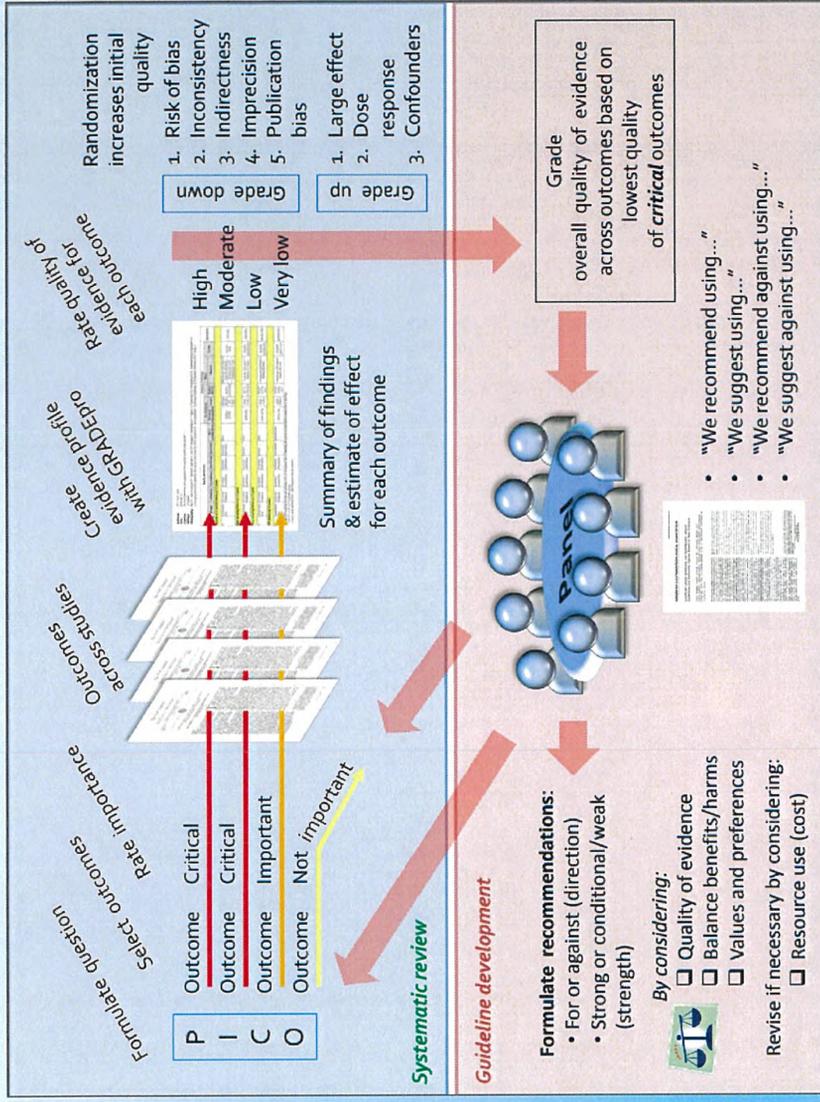


Image from: https://www.cdc.gov/vaccines/acip/recs/grade/downloads/guide_cdcveggrade.pdf

Formulate a Question

Does breast augmentation improve health outcomes?

- Population: *Transgender women, non-binary AMAB*
- Intervention: *Gender affirming surgery (Breast augmentation)*
- Comparison: *No surgery*
- Outcomes: *Psychological outcomes (depression, anxiety)*

GRADE

- Quality of evidence:
 - ⊕⊕⊕⊕ (High) *RCTs*
 - ⊕⊕⊕⊕ (Moderate)
 - ⊕⊕⊕ (Low) *Observational studies*
 - ⊕ (Very low)
- Recommendation:
 - Weak
 - strong

Appendix A METHODOLOGY

1. Introduction

This version of the Standards of Care (SOC-8) is based upon a more rigorous and methodological evidence-based approach than previous versions. This evidence is not only based on the published literature (direct as well as background evidence) but also on consensus-based expert opinion. Evidence-based guidelines include recommendations intended to optimize patient care and are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options. Evidence-based research provides the basis for sound clinical practice guidelines and recommendations but must be balanced by the realities and feasibility of providing care in diverse settings. The process for development of the SOC-8 incorporated recommendations on clinical practice guideline development from the National Academies of Medicine and The World Health Organization that addressed transparency, the conflict-of-interest policy, committee composition and group process. (Institute of Medicine Committee on Standards for Developing Trustworthy Clinical Practice, 2011; World Health Organization, 2019a).

The SOC-8 revision committee was multidisciplinary and consisted of subject matter experts, health care professionals, researchers and stakeholders with diverse perspectives and geographic representation. All committee members completed conflict of interest declarations.*

A guideline methodologist assisted with the planning and development of questions, and an independent team undertook systematic reviews that were used to inform some of the statements for recommendations. Additional input to the guidelines was provided by an international advisory committee, legal experts, and feedback received during a public comment period. Recommendations in the SOC-8 are based on available evidence supporting interventions, a discussion of risks and harms, as well as feasibility and acceptability within different contexts and country settings. Consensus of the final recommendations was attained using a Delphi process that included all members of the Standards of Care Revision committee and required that recommendation statements were approved by 75% of members. Supportive and explanatory text of the evidence for the statements were written by chapter members. Drafts of the chapters were reviewed by the Chair and the Co-Chairs of the SOC Revision Committee to ensure the format was consistent, evidence was properly provided, and recommendations were consistent across chapters. An independent team checked the references used in the SOC-8 before the guidelines were fully edited by a single professional. A detailed overview of the SOC-8 Methodology is described below.

2. Difference between the methodology of the SOC-8 and previous editions

The main differences in the methodology of the SOC-8 when compared with other versions of the SOC are:

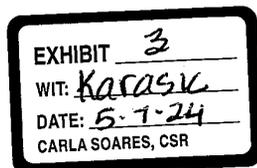
- The involvement of a larger group of professionals from around the globe;

- A transparent selection process to develop the guidelines steering committee as well as to select chapter leads and members;
- The inclusion of diverse stakeholders in the development of the SOC-8
- Management of conflicts of interest
- The use of a Delphi process to reach agreement on the recommendations among SOC-8 committee members
- The involvement of an independent body from a reputable university to help develop the methodology and undertake independent systematic literature reviews where possible
- Recommendations were graded as either “recommend” or “suggest” based upon the strength of the recommendations.
- The involvement of an independent group of clinical academics to review citations.
- The involvement of international organizations working with the transgender and gender diverse (TGD) community, members of WPATH and other professional organizations as well as the general public who provided feedback through a public comment period regarding the whole SOC-8.

3. Overview of SOC-8 development Process

The steps for updating the Standards of Care are summarized below:

1. Establishing Guideline Steering Committee including Chair, and Co-Chairs (July 19, 2017)
2. Determining chapters (scope of guidelines)
3. Selecting Chapter Members based upon expertise (March 2018)
4. Selecting the Evidence Review Team: John Hopkins University (May 2018)
5. Refining topics included in the SOC-8 and review questions for systematic reviews
6. Conducting systematic reviews (March 2019)
7. Drafting the recommendation statements
8. Voting on the recommendation statements using a Delphi process (September 2019–February 2022)
9. Grading of the recommendations statements
10. Writing the text supporting the statements
11. Independently validating the references used in the supportive text
12. Finalizing a draft SOC-8 (December 1, 2021)
13. Feedback on the statements by International Advisory Committee
14. Feedback on the entire draft of the SOC-8 during a public comment period (November 2021–January 2022)
15. Revision of Final Draft based on comments (January 2022– May 2022)
16. Approval of final Draft by Chair and Co-Chairs (June 10, 2022)
17. Approval by the WPATH Board of Directors
18. Publication of the SOC-8
19. Dissemination and translation of the SOC-8



3.1. Establishment of Guideline Steering Committee

The WPATH Guideline Steering Committee oversaw the guideline development process for all chapters of the Standards of Care. Except for the Chair (Eli Coleman) who was appointed by the WPATH board to maintain a continuity from previous SOC editions, members of the Guideline Steering Committee were selected by the WPATH Board from WPATH members applying for these positions. Job descriptions were developed for the positions of Co-Chairs, Chapter Leads, Chapter Members and Stakeholder. WPATH members were eligible to apply by completing an application form and submitting their CV. The Board of WPATH voted for the position of co-chair (one member of the board did not participate in view of conflict of interest). The chairs and co-chairs selected the chapter leads and members (as well as stakeholders) based on the application form and CVs.

The Guideline Steering Committee for Standards of Care 8th Version are:

- Eli Coleman, PhD (Chair) Professor, Director and Academic Chair, Institute for Sexual and Gender Health, Department of Family Medicine and Community Health, University of Minnesota Medical School (USA)
- Asa Radix, MD, PhD, MPH (Co-chair) Senior Director, Research and Education Callen-Lorde Community Health Center Clinical Associate Professor of Medicine New York University, USA
- Jon Arcelus, MD, PhD (Co-chair) Professor of Mental Health and Well-being Honorary Consultant in Transgender Health University of Nottingham, UK
- Karen A. Robinson, PhD (Lead, Evidence Review Team) Professor of Medicine, Epidemiology and Health Policy & Management Johns Hopkins University, USA

3.2. Determination of topics for chapters

The Guideline Steering Committee determined the chapters for inclusion in the Standards of Care by reviewing the literature and by reviewing the previous edition of the SOC. The chapters in the Standards of Care 8th Version:

1. Terminology
2. Global Applicability
3. Population estimates
4. Education*
5. Assessment of Adults
6. Adolescent
7. Children
8. Nonbinary
9. Eunuch
10. Intersex
11. Institutional environments
12. Hormone Therapy
13. Surgery and Postoperative Care
14. Voice and communication

15. Primary care
16. Reproductive Health
17. Sexual Health
18. Mental Health

* The Education Chapter was originally intended to cover both education and ethics. A decision was made to create a separate committee to write a chapter on ethics. In the course of writing the chapter, it was later determined topic of ethics was best placed external to the SOC8 and required further in-depth examination of ethical considerations relevant to transgender health.

3.3. Selection of chapter members

A call for applications to be part of the SOC-8 review committee (chapter lead or member) was sent to the WPATH membership. The Chairs of the Guideline Steering Committee appointed the members for each chapter, ensuring representation from a variety of disciplines and perspectives.

Chapter Leads and Members were required to be WPATH Full Members in good standing and content experts in transgender health, including in at least one chapter topic. Chapter Leads reported to the Guideline Steering Committee and were responsible for coordinating the participation of Chapter Members. Chapter members reported directly to the Chapter Lead.

Each chapter also included stakeholders as members who bring perspectives of transgender health advocacy or work in the community, or as a member of a family that included a transgender child, sibling, partner, parent, etc. Stakeholders were not required to be full members of WPATH.

The Chapter Members were expected to:

- Participate in the development refinement of review questions
- Read and provide comments on all materials from the Evidence Review Team
- Critically review draft documents, including the draft evidence report
- Review and assess evidence and draft recommendations
- Participate in the Delphi consensus process
- Develop the text to back up the recommendation statements
- Grade each statement to describe the strength of the recommendation
- Review and address the comments from the Chairs during the whole process
- Develop the content of the chapters
- Review comments from public comments and assist in the development of a revision of guidelines
- Provide input and participate in the dissemination of guidelines

Training and orientation for Chapter Leads and Members was provided, as needed. Training content included formulation and refinement of questions (i.e., use of PICO), reviewing the evidence, developing recommendation state-

ments, grading the evidence and the recommendations, and information about the guideline development program and process.

A total of 26 chapter-leads were appointed (some chapters required co-leads), 77 chapter members and 16 stakeholders. A total of 127 were selected. During the SOC process, 8 people left, due to personal or work-related issues. Therefore, there were 119 final authors of the SOC-8.

3.4. Selection of the evidence review team

The WPATH Board issued a request for applications to become the Evidence Review Team. For Standards of Care 8th Version the WPATH Board engaged the Evidence Review Team at Johns Hopkins University under the leadership of Karen Robinson.

- Karen A. Robinson, PhD (Lead, Evidence Review Team) Professor of Medicine, Epidemiology and Health Policy & Management Johns Hopkins University, USA

Dr Robinson also guided the steering committee in the development of the SOC-8 by providing advice and training in the development of PICO questions, statements, and the Delphi process as well as undertaking a very rigorous systematic literature review where direct evidence was available.

Conflict of interest

Members of the Guideline Steering Committee, Chapter Leads and Members, and members of the Evidence Review Team were asked to disclose any conflicts of interest. Also reported, in addition to potential financial and competing interests or conflicts, are personal or direct reporting relationships with a chair, co-chair or a WPATH Board Member or the holding of a position on the WPATH Board of Directors.

3.5. Refinement of topics and review of questions

The Evidence Review Team abstracted the recommendation statements from the prior version of the Standards of Care. With input from the Evidence Review Team, the Guideline Steering Committee and Chapter Leads determined:

- Recommendation statements that needed to be updated
- New areas requiring recommendation statements

3.6. Conduct the systematic reviews

Chapter Members developed questions to help develop recommendation statements. For the questions eligible for systematic review, the Evidence Review Team drafted review questions, specifying the Population, Interventions, Comparisons, and Outcomes (PICO elements). The Evidence Review Team undertook the systematic reviews. The Evidence Review Team presented evidence tables and other

results of the systematic reviews to the members of the relevant chapter for feedback.

Protocol

A separate detailed systematic review protocol was developed for each review question or topic, as appropriate. Each protocol was registered on PROSPERO.

Literature search

The Evidence Review Team developed a search strategy appropriate for each research question including MEDLINE®, Embase®, and the Cochrane Central Register of Controlled Trials (CENTRAL). The Evidence Review Team searched additional databases as deemed appropriate for the research question. The search strategy included MeSH and text terms and was not limited by language of publication or date.

The Evidence Review Team hand searched the reference lists of all included articles and recent, relevant systematic reviews. The Evidence Review Team searched ClinicalTrials.gov for any additional relevant studies.

Searches were updated during the peer review process.

The literature included in the systematic review was mostly based on quantitative studies conducted in Europe, the US or Australia. We acknowledge a bias towards perspectives from the global north that does not pay sufficient attention to the diversity of lived experiences and perspectives within transgender and gender diverse (TGD) communities across the world. This imbalance of visibility in the literature points to a research and practice gap that needs to be addressed by researchers and practitioners in the future in order to do justice to the support needs of all TGD people independent of gender identification.

Study selection

The Evidence Review Team, with input from the Chapter Workgroup Leads, defined the eligibility criteria for each research question *a priori*.

Two reviewers from the Evidence Review Team independently screened titles and abstracts and full-text articles for eligibility. To be excluded, both reviewers needed to agree that the study met at least one exclusion criteria. Reviewers resolved differences regarding eligibility through discussion.

Data extraction

The Evidence Review Team used standardized forms to abstract data on general study characteristics, participant characteristics, interventions, and outcome measures. One reviewer abstracted the data, and a second reviewer confirmed the abstracted data.

Assessment of risk of bias

Two reviewers from the Evidence Review Team independently assessed the risk of bias for each included study. For

randomized controlled trials, the Cochrane Risk of Bias Tool was used. For observational studies, the Risk of Bias in Non-Randomized Studies—of Interventions (ROBINS-I) tool was used. Where deemed appropriate, existing recent systematic reviews were considered and evaluated using ROBIS.

Data synthesis and analysis

The Evidence Review Team created evidence tables detailing the data abstracted from the included studies. The members of the Chapter Workgroups reviewed and provided comments on the evidence tables.

Grading of the evidence

The Evidence Review Team assigned evidence grades using the GRADE methodology. The strength of the evidence was obtained using predefined critical outcomes for each question and by assessing the limitations to individual study quality/risk of bias, consistency, directness, precision, and reporting bias.

3.7. Drafting of the Recommendation Statements

Chapter Leads and Members drafted recommendation statements. The statements were crafted to be feasible, actionable, and measurable.

Evidence-based recommendation statements were based on the results of the systematic, and background literature reviews plus consensus-based expert opinions.

The Chair and Co-Chairs and Chapter Leads reviewed and approved all recommendation statements for clarity and consistency in wording. During this review and throughout the process any overlap between chapters was also addressed.

Many chapters had to work closely together to ensure consistency of their recommendations. For example, as there are now separate chapters for childhood and adolescence, to ensure consistency between both chapters, some authors were part of both chapters. For a similar reason, when applicable, a workgroup collaborated with other Chapter Workgroups on topics shared between the chapters (i.e., Assessment of Children, Assessment of Adults, Hormone Therapy, Surgery and Postoperative Care and Reproductive Health).

3.8. Approval of the recommendations using the Delphi process

Formal consensus for all statements was obtained using the Delphi process (a structured solicitation of expert judgments in three rounds). For a recommendation to be approved, a minimum of 75% of the voters had to approve the statement. A minimum of 65% of the SOC-8 members had to take part in the Delphi process for each statement. People who did not approve the statement had to provide information as to the reasons for their disapproval, so the statement could be modified (or removed) according to this feedback. Once modified, the statement was put through the Delphi process again. If after 3 rounds the statement

was not approved, the statement was removed from the SOC. Every member of the SOC voted for each statement. There was a response rate between (74.79% and 94.96%) for the statements.

3.9. Grading criteria for statements

Once the statements passed the Delphi process, chapter members graded each statement using a process adapted from the Grading of Recommendations, Assessment, Development and Evaluations (GRADE) framework. This a transparent framework for developing and presenting summaries of evidence and provides a systematic approach for making clinical practice recommendations (Guyatt et al., 2011). The statements were graded based on factors such as:

- The balance of potential benefits and harms
- Confidence in that balance or quality of evidence
- Values and preferences of providers and patients
- Resource use and feasibility

The statements were classified as:

- Strong recommendations (“we recommend”) are for those interventions/therapy/strategies where:
 - the evidence is of high quality
 - estimates of the effect of an intervention/therapy/strategy (i.e., there is a high degree of certainty effects will be achieved in practice)
 - there are few downsides of therapy/intervention/strategy
 - there is a high degree of acceptance among providers and patients or those for whom the recommendation applies.
- Weak recommendations (“we suggest”) are for those interventions/therapy/strategies where:
 - there are weaknesses in the evidence base
 - there is a degree of doubt about the size of the effect that can be expected in practice
 - there is a need to balance the potential upsides and downsides of interventions/therapy/strategies
 - there are likely to be varying degrees of acceptance among providers and patients or those for whom the recommendation applies.

3.10. Writing of the text supporting the statements

Following the grading of the statements, the Chapter Workgroups wrote the text providing the rationale or reasoning for the recommendation. This included providing the available evidence, providing details about potential benefits and harms, describing uncertainties, and information about implementation of the recommendation, including expected barriers or challenges among others. References use APA-7 style, to support the information in the text. Links to resources are also provided, as appropriate. The text, including whether a recommendation has been described as strong or weak, was reviewed and approved by the Chair and Co-Chairs.

3.11. External validation of references used to support the statements

A group of independent clinical academics working in the field of transgender health reviewed the references used in every chapter in order to validate that the references were appropriately used to support the text. Any queries regarding the references were sent back to the chapters for review.

3.12. Finalizing a draft SOC-8

A final SOC-8 draft was made available for comments.

3.13. Distribute Standards of Care for review by international advisors

The statements of the recommendations of Standards of Care 8th were circulated among the broader Standards of Care Revision Committee and the WPATH International Advisory Group, which included the Asia Pacific Transgender Network (APTN), the Global Action for Transgender Equality (GATE), the International Lesbian, Gay, Bisexual, Transgender, Intersex Association (ILGA), and Transgender Europe (TGEU).

3.14. Public comment period

The revised draft version of the Standards of Care document was posted online for comment from the public, including WPATH members, on the WPATH website. A 6-week period was allocated for comments. A total of 1,279 people made comments on the draft with a total of 2,688 comments.

3.15. Revision of final draft based on comments

The Chapter Leads and Guideline Steering Committee considered the feedback and made any necessary revisions. All public comments were read and, where appropriate, integrated into the background text.

As part of this process, 3 new Delphi statements were developed and 2 were modified enough to require a new vote by the SOC-8 committee. This meant a new Delphi process was initiated in January 2022. The results of this

Delphi process were accepted by the chapters, and the new statements were added or modified accordingly. The new supportive text was added.

All the new versions of the chapters were reviewed again by the Chair and Co-Chairs and changes or modifications were suggested. Finally, once the Chairs and the Chapter Members were satisfied with the draft, the chapter was finalized.

All new references were double checked by an independent member.

3.16. Approval of final draft by Chair and Co-Chairs

Modifications were reviewed by the Chairs and were accepted by them.

3.17. Approval by the WPATH Board of Directors

The final document was presented to the WPATH Board of Directors for approval and it was approved on the 20th of June 2022.

3.18. Publication of the SOC-8 and dissemination of the Standards of Care

The Standards of Care was disseminated in a number of venues and in a number of formats including publication in the International Journal of Transgender Health (the official scientific journal of WPATH).

4. Plan to Update

A new edition of the SOC (SOC-9) will be developed in the future, when new evidence and/or significant changes in the field necessitating a new edition is substantial.

*The development of SOC-8 was a complex process at a time of COVID-19 and political uncertainties in many parts of the world. Members of the SOC-8 worked on the SOC-8 on top of their day-to-day job, and most of the meetings took place out of their working time and during their weekends via Zoom. There were very few face-to-face meetings, most of them linked to WPATH, USPATH or EPATH conferences. Committee members of the SOC-8 were not paid as part of this process.

**IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF ALABAMA
NORTHERN DIVISION**

BRIANNA BOE, individually and on
behalf of her minor son, MICHAEL BOE;
et al.,

Plaintiffs,

and

UNITED STATES OF AMERICA,

Plaintiff-Intervenor,

v.

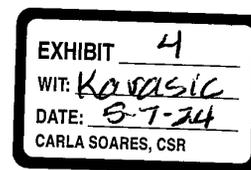
STEVE MARSHALL, in his official
capacity as Attorney General of the State
of Alabama; *et al.*,

Defendants.

Case No. 2:22-cv-00184-LCB-CWB

Honorable Liles C. Burke

EXPERT REBUTTAL REPORT OF DAN H. KARASIC, M.D.



I. INTRODUCTION

I, Dan H. Karasic, M.D., hereby state as follows:

1. I have been retained by counsel for Plaintiffs as an expert in connection with the above-captioned litigation. I have actual knowledge of the matters stated herein. If called to testify in this matter, I would testify truthfully and based on my expert opinion.

A. Qualifications

2. The information provided regarding my professional background, experiences, publications, and presentations are detailed in my curriculum vitae (“CV”). A true and correct copy of my most up-to-date CV is attached as **Exhibit A**.

3. I am a Professor Emeritus of Psychiatry at the University of California – San Francisco (UCSF) Weill Institute for Neurosciences. I have been on faculty at UCSF since 1991. I also have had a telepsychiatry private practice since 2020.

4. I received my Doctor of Medicine (M.D.) degree from the Yale Medical School in 1987. In 1991, I completed my residency in psychiatry at the University of California – Los Angeles (UCLA) Neuropsychiatric Institute, and from 1990 to 1991, I was a postdoctoral fellow at UCLA in a training program in mental health services research for persons living with AIDS.

5. For over 30 years, I have worked with patients with gender dysphoria.

6. I am a Distinguished Life Fellow of the American Psychiatric Association and the chair of the American Psychiatric Association Workgroup on Gender Dysphoria, as well as the sole author of the chapter on transgender care in the American Psychiatric Press’s Clinical Manual of Cultural Psychiatry, Second Edition.

7. For over 30 years, I have provided care for thousands of transgender patients. For 17 years, I was the psychiatrist for the Dimensions Clinic, for transgender youth ages 12-25 years old, in San Francisco.

8. I previously sat on the Board of Directors of the World Professional Association for Transgender Health (WPATH) and was lead author of the Mental Health chapter of WPATH's *Standards of Care for the Health of Gender Diverse and Transgender People* Version 8 (WPATH SOC 8), which are the internationally accepted guidelines designed to promote the health and welfare of transgender, transsexual, and gender variant persons. I was also a co-author of WPATH SOC 7.

9. As a member of the WPATH Global Education Initiative, I helped develop a specialty certification program in transgender health and helped train over 2,000 health providers. At UCSF, I developed protocols and outcome measures for the Transgender Surgery Program at the UCSF Medical Center. I also served on the Medical Advisory Board for the UCSF Center of Excellence for Transgender Care and co-wrote the mental health section of the original *Guidelines for the Primary and Gender-Affirming Care of Transgender and Gender Nonbinary People* and the revision in 2016.

10. I have worked with the San Francisco Department of Public Health, having helped develop and implement their program for the care of transgender patients and for mental health assessments for gender-affirming surgery. I served on the City and County of San Francisco Human Rights Commission's LGBT Advisory Committee, and I have been an expert consultant for California state agencies and on multiple occasions for the United Nations Development Programme on international issues in transgender care.

11. I have held numerous clinical positions concurrent to my clinical professorship at UCSF. Among these, I served as an attending psychiatrist for San Francisco General Hospital's consultation-liaison service for AIDS care, as an outpatient psychiatrist for HIV-AIDS patients at UCSF, as a psychiatrist for the Transgender Life Care Program and the Dimensions Clinic at Castro Mission Health Center, and as the founder and co-lead of the UCSF Alliance Health Project's

Transgender Team. In these clinical roles, I specialized in the evaluation and treatment of transgender, gender dysphoric, and HIV-positive patients. I also regularly provide consultation on challenging cases to psychologists and other psychotherapists working with transgender and gender dysphoric patients. I have been a consultant in transgender care to the California Department of State Hospitals and the California Department of Corrections and Rehabilitation.

12. As part of my psychiatric practice treating individuals diagnosed with gender dysphoria and who receive medical and surgical treatment for that condition, as well as a co-author of the WPATH Standards of Care and UCSF's *Guidelines for the Primary and Gender-Affirming Care of Transgender and Gender Nonbinary People*, I am and must be familiar with additional aspects of medical care for the diagnosis of gender dysphoria, beyond mental health treatment, assessment, and diagnosis.

13. In addition to this work, I have done research on the treatment of depression. I have authored many articles and book chapters and edited the book *Sexual and Gender Diagnoses of the Diagnostic and Statistical Manual (DSM): A Reevaluation*.

14. Since 2018, I have performed over 100 independent medical reviews for the State of California to determine the medical necessity of transgender care in appeals of denial of insurance coverage.

B. Compensation

15. I am being compensated for my work on this matter at a rate of \$400.00 per hour for preparation of declarations and expert reports. I will be compensated \$3,200.00 per day for any deposition testimony or trial testimony. My compensation does not depend on the outcome of this litigation, the opinions I express, or the testimony I may provide.

C. Previous Testimony

16. Over the past four years, I have given expert testimony at trial or by deposition in the following cases: *C.P. v. Blue Cross Blue Shield of Illinois*, No. 3:20-cv-06145-RJB (W.D. Wash.); *Kadel v. Folwell*, No. 1:19-cv-00272 (M.D.N.C.); *Fain v. Crouch*, 3:20-cv-00740 (S.D.W. Va.); *Brandt v. Rutledge*, No. 4:21-cv-00450 (E.D. Ark.); *K.C. et al. vs Individual Members of the Indiana Licensing Board, et al.*; *Dekker, et al. v. Weida, et al.*, No. 4:22-cv-00325-RH-MAF (N.D. Fla.); and *Doe v. Ladapo*, No. 4:23-cv-00114-RH-MAF (N.D. Fla.). To the best of my recollection, I have not given expert testimony at a trial or at a deposition in any other case during this period.

D. Bases for Opinions

17. In preparing this report, I have relied on my training and years of research and clinical experience, as set out in my curriculum vitae, and on the materials listed therein, as documented in my curriculum vitae.

18. I have also reviewed the materials listed in the bibliography attached hereto as **Exhibit B**. The sources cited therein include authoritative, scientific peer-reviewed publications. I have additionally relied on the documents specifically cited as supportive examples in particular sections of this report.

19. Additionally, I reviewed the text of the Alabama law being challenged in this case.

20. The materials I have relied upon in preparing this report are the same types of materials that experts in my field of study regularly rely upon when forming opinions on the subject. I reserve the right to revise and supplement the opinions expressed in this report or the bases for them if any new information becomes available in the future, including as a result of new scientific research or publications or in response to statements and issues that may arise in

my area of expertise.

21. I reserve the right to revise and supplement the opinions expressed in this report or the bases for them if any new information becomes available in the future, including as a result of new scientific research or publications or in response to statements and issues that may arise in my area of expertise. I may also further supplement these opinions in response to information produced by Defendants in discovery and in response to additional information from Defendants' designated experts.

EXPERT REBUTTAL OPINIONS

22. I reviewed the expert reports and supplemental reports, where applicable, of Michael K. Laidlaw, M.D., James M. Cantor, PhD., Kristopher Kaliebe, MD and Geeta Nangia, M.D. I submit this report to respond to certain points raised in the reports of these experts.

23. The critiques below apply to more than one expert. In this rebuttal report, I respond to some of the central points made in those reports. I do not address each and every assertion made in those reports that I believe are baseless, misleading, or mischaracterizations of the evidence, as there are many. Instead, my aim is to provide an explanation of the erroneous premises upon which their conclusions are based. As a general matter, the State's experts hold views that are outside the mainstream of experts in transgender health and mainstream medical organizations.

THE STATE'S EXPERT WITNESSES' DESCRIPTION OF GENDER-AFFIRMING CARE FOR ADOLESCENTS WITH GENDER DYSPHORIA BEARS NO RESEMBLANCE TO THE PREVAILING TREATMENT PROTOCOLS

24. The State's experts offer a description of medical care for adolescents with gender dysphoria that bears no resemblance to the widely accepted protocols for treatment articulated in the WPATH Standards of Care 8 ("WPATH SOC") and the Endocrine Society Guideline. Throughout their reports, the State's experts claim that doctors who provide medical interventions

to treat gender dysphoria actively encourage patients to be transgender, rush to provide medical interventions without mental health assessments of patients, disregard other mental health and family issues that could be causing the patient distress, oppose psychotherapy, and fail to inform patients and their families of the risks associated with treatment. (*See, e.g.*, Cantor Report ¶ 126 (referring to “transition-on-demand”).)

25. The State’s experts also claim that there is no consensus or agreed standard of care concerning therapeutic approaches to gender dysphoria in adolescents. In fact, there is an international consensus of leaders in providing and researching care for transgender people, which is published as the WPATH Standards of Care for the Health of Transgender and Gender Diverse People, Version 8. The use of the WPATH Standards of Care is supported and/or adopted by, among others, the American Psychiatric Association, the American Psychological Association, the American Medical Association, the American Academy of Pediatrics, by the Federal Bureau of Prisons, and by many insurance companies, and health systems, as well as by Maximus, which administers independent medical reviews for insurance appeals in many states as well as federal appeals. The fact that there are some outlier views which, no matter how loud, constitute a minority within the medical and scientific community, does not mean that there is no broad consensus among the larger medical and scientific community about the propriety, safety, and effectiveness of medical care for the treatment of gender dysphoria.

26. Under the prevailing standard of care for instance:

- a. Under the WPATH SOC and Endocrine Society Guideline, appropriate care for transgender youth does not mean steering them in a particular direction, but rather supporting them through their period of exploration of gender expression and increasing self-awareness of their identity. (Coleman, et al., 2022, at 50-51; Ehrensaft, 2017). The WPATH SOC 8 makes clear that “[f]or some youth,

obtaining medical treatment is important while for others these steps may not be necessary.” (Coleman, et al., 2022, at 51).

- b. The protocols state that before any medical interventions are provided to adolescents, a careful mental health assessment should be conducted to ascertain whether the diagnostic criteria for Gender Dysphoria in Adolescents and Adults are met and the appropriateness of such care for the patient. (Coleman, et al., 2022, at S50; Hembree, et al., 2017, at 3877).
- c. The protocols provide that clinicians should ensure that any psychiatric conditions are appropriately addressed and that it is important that mental health care is available to patients before, during, and sometimes after transitioning. (Coleman, et al., 2022 at S256-7; Hembree, et al., 2017, at 3876, 3879.)
- d. The protocols provide for a rigorous informed consent process that includes informing the patient and their parents of side effects of treatment, including the potential loss of fertility. For hormone therapy, in addition to requiring the parents’ informed consent, the adolescent must have “sufficient mental capacity . . . to estimate the consequences of this (partly) irreversible treatment, weigh the benefits and risks, and give informed consent.” (Hembree, et al., 2017, at 3878.)

27. In sum, the State’s experts create a straw man by providing a false description of care under the prevailing protocols and then attack it. They either misunderstand the prevailing protocols or assume, without basis, that all or most gender clinics disregard them. As a clinician who, unlike the State’s experts, actively works with a multitude of clinicians providing care to transgender youth and adults, I know firsthand that their characterization of treatment is wholly inconsistent with the prevailing practice. WPATH SOC 8 also requires that practitioners have

knowledge of child development and family development and approach the child in a way that “does not favor any identity.” (Coleman, et al., 2022).

28. If there are individual doctors who deviate from the accepted protocols and inappropriately provide care that is harmful to patients, medical licensing boards can address that without denying care to those who have been appropriately assessed and determined to need it. The State’s experts point to comments by Drs. Laura Edwards-Leeper and Erica Anderson expressing concerns that some children and adolescents are being subjected to puberty blockers and hormonal intervention far too quickly. (*See, e.g.*, Kaliebe Supp. Report ¶ 19.) These doctors’ comments were aimed at improving care, not banning it. After making the comments cited by the State’s experts, Dr. Bowers and Dr. Anderson were signatories to a letter from USPATH and WPATH supporting gender-affirming medical care for adolescents with gender dysphoria and opposing legislation like Alabama’s law.¹ Dr. Edwards-Leeper and Dr. Anderson similarly expressed their full support for gender-affirming care and “disgust” at legislative bans of such care.

29. Dr. Edwards-Leeper, Dr. Anderson and Dr. Bowers were original signatories on a 2023 letter, published at <https://www.gamcstatement.org/>, which states: “However, often lost in the public version of these debates is our strong agreement about two central points that we wish to highlight here. First, there is consensus in the field, and amongst these signatories, that gender affirming medical care is important and beneficial for many transgender youth. Second, we do not support laws restricting access to gender affirmative care. As with all medical care, we believe an adolescent’s health care, including their access to gender affirming medical care, should be determined by the youth along with their families and health care teams.”

¹ United States Professional Association for Transgender Health and World Professional Association for Transgender Health. (2021). Joint Letter from USPATH and WPATH. *Available at* <https://www.wpath.org/media/cms/Documents/Public%20Policies/2021/Joint%20WPATH%20USPATH%20Letter%20Dated%20Oct%2012%202021.pdf>

30. It is clear from some of the State's experts' reports that their concern is not about the alleged lack of thorough mental health assessments or access to psychotherapy for patients; it is about opposition to transition-related medical care. (*See, e.g.*, Corr. Nangia Report ¶ 56; Laidlaw ¶ 246.)

**MEDICAL CARE FOR TRANSGENDER ADOLESCENTS IS SAFE AND EFFECTIVE
AND IT WOULD BE HARMFUL TO BAN ACCESS TO THIS CARE**

31. Gender-affirming medical interventions in accordance with the WPATH SOC 8 and Endocrine Society Guidelines are widely recognized in the medical community as safe, effective, and medically necessary for many adolescents with gender dysphoria. (*See* American Academy of Pediatrics, 2018; the American Medical Association, 2021; the Endocrine Society, 2020, the Pediatric Endocrine Society, 2021; the American Psychiatric Association, 2018; the American Psychological Association, 2021; the American Congress of Obstetricians and Gynecologists, 2021; the American Academy of Family Physicians, 2020; WPATH, 2012).

32. Medical treatment for gender dysphoria has been studied for over half a century, and there is substantial evidence that it improves quality of life and measures of mental health. (Aldridge et al., 2020; Almazan, et al., 2021; Baker et al., 2021; Chen, et al., 2023, Murad, et al., 2010; Nobili et al., 2018; Pfafflin & Junge, 1998; T'Sjoen et al. 2019; van de Grift et al., 2017; White Hughto and Reisner, 2016; Wierckx et al., 2014).

33. The State's experts' claims that there is no evidence medical transition significantly reduces rates of suicide or suicidality among transgender youth are false. A study of transgender youth in the United States showed a decrease in suicidality and increase in reported well-being after treatment with gender affirming hormones. (Allen, et al., 2019). In a prospective study at Seattle Children's Gender Clinic of 104 transgender and nonbinary youth ages 13-21 who received puberty blockers or hormones over a 12-month period, treatment with puberty blockers or hormones was associated with 60% less moderate to severe depression and 73% less suicidal

ideation, compared to youth not treated (Tordoff, et al. 2022). A Dutch study showed increased suicidality and self-harm in transgender youth compared to cisgender peers before puberty suppression, but transgender youth who were treated with puberty suppression had similar psychological function as cisgender peers. (Van der Miesen, et al., 2020). In a Finnish study, the start of hormone treatment in transgender adolescents reduced the need for psychiatric treatment for suicidality from 35% to 4% (Kaltiala, et al., 2020).

34. Data from the Dutch experience with evaluation and care by a multidisciplinary team, using puberty blockers, followed by hormones and surgery when indicated, show that this approach, over many years of follow up, results in high satisfaction, a lack of regret, and mental health outcomes similar to those of a control group that was not transgender. (DeVries, et al., 2014). Zucker, et al., (2010) states about the Dutch studies of treatment of adolescents: “For adolescents recommended for puberty-blocking hormonal therapy, there was . . . evidence of improvement in general psychologic problems at follow-up and certainly no evidence of deterioration in psychological wellbeing.” In a Canadian study of transgender people 16 and older, completing a medical transition was associated with a 62% reduction in suicidal ideation. (Bauer, et al., 2015); *see also* (Green et al., 2021) (finding that access to hormone therapy during adolescence was associated with lower odds of recent depression and having attempted suicide in the past year); (Turban, et al., 2020) ((finding that access to puberty blockers during adolescence is associated with a decreased lifetime incidence of suicidal ideation among adults); (Achille, et al., 2020) (finding that endocrine intervention was associated with decreased depression and suicidal ideation and improved quality of life for transgender youth); (Costa, et al., 2015) (finding improved psychological function after six months of puberty suppression).

35. The studies on gender-affirming medical care for adolescents with gender dysphoria are consistent with decades of clinical experience of mental health providers across the U.S. and

around the world. At professional conferences and other settings in which I interact with colleagues, clinicians report that gender-affirming medical care, for those for whom it is indicated, provides great clinical benefit. In my 30 years of clinical experience treating gender dysphoric patients, including 19 years working with adolescents, I have seen the benefits of gender affirming medical care on my patients' health and well-being. I have seen many patients show improvements in mental health, as well as in performance in school, in social functioning with peers, and in family relationships when they experience relief from gender dysphoria with gender-affirming medical care.

36. To be clear, medical care for a transgender adolescent is not provided simply because someone requests it; it is recommended and provided by health professionals when such care is medically indicated based on an individualized assessment of a youth's medical needs, and only after obtaining the informed consent of the youth's parents or legal guardians and the informed assent of the youth.

37. Regret rates for gender-affirming medical care are very low. A study of everyone receiving gender-affirming surgery in Sweden over 50 years (1960 to 2010) found a regret rate of 2.2%, declining over the years. There were ten cases of regret from 1960 to 1980, and only five cases of regret total in the last 30 years that were reviewed, from 1981-2010. (Dhejne, et al., 2014). A meta-analysis of 27 studies which reported regret after gender-affirming surgery found that of 7928 people having gender-affirming surgery, the regret rate was 1%. (Bustos, et al., 2021). A study of 209 gender-affirming mastectomies in transmasculine adolescents aged 12-17, performed at Kaiser Permanente Northern California from 2013 to 2020, showed a regret rate of 1%. (Tang, et al 2022). Cavve, et al (2024) found a 1% rate of detransition in adolescents due to re-identification with birth sex in 196 adolescents treated with puberty blockers and hormones. Bruce, et al. 2023 found that of 235 people receiving gender-affirming mastectomy over 30 years,

none regretted surgery: a median regret score of 0.0 on a 1-100 scale. These studies showing regret is uncommon are consistent with my clinical practice. I have had some patients who halted their transition due to challenging personal circumstances—*e.g.*, fear of losing family support— but they still had gender dysphoria. And some came back years later to resume their transition. But in 30 years, I have never seen a patient who had undergone hormone therapy and surgery and later came to identify with their sex assigned at birth and, thus, regretted the treatment and wanted to undo its effects.

38. The overarching goal of treatment is to eliminate the distress of gender dysphoria by aligning an individual patient’s body and presentation with their internal sense of self. The denial of medically indicated care to transgender people not only results in the prolonging of their gender dysphoria, but causes additional distress and poses other health risks, such as depression, posttraumatic stress disorder, and suicidality. In other words, lack of access to gender-affirming care directly contributes to poorer mental health outcomes for transgender people. (Owen-Smith, et al., 2018).

39. For patients for whom gender-affirming medical care is indicated, no alternative treatments have been demonstrated to be effective. The American Psychological Association states that gender identity change efforts provide no benefit and instead do harm. (American Psychological Association, 2021). In 2023, the Substance Abuse and Mental Health Services Administration published a comprehensive review of existing literature on therapeutic efforts to change a child’s gender identity or gender expression and found:

No research has demonstrated that gender identity change efforts are effective in altering gender identity; there is also no evidence of any benefits of such practices to children, adolescents, or their families. Recent large, methodologically sound studies have investigated harms associated with gender identity change efforts. These studies indicate that exposure to gender identity change efforts—in childhood, adolescence, and/or adulthood—is associated with harm, including suicidality, suicide attempt,

and other negative mental health outcomes such as severe psychological distress.²

40. Accordingly, major medical organizations, such as the American Medical Association, American Psychiatric Association, the Endocrine Society, American College of Obstetricians and Gynecologists, American Urological Association, American College of Physicians, American Association of Clinical Endocrinology, and American Academy of Family Physicians oppose the denial of this medically necessary care and support public and private health insurance coverage for treatment of gender dysphoria as recommended by the patient's physician. (American Medical Association, 2021, 2023; American Psychiatric Association, 2018; Endocrine Society, 2012; American College of Obstetricians and Gynecologists, 2021; American Academy of Family Physicians, 2020). Denial of this appropriate care for transgender adolescents is also opposed by medical professional organizations responsible for the care of youth, including the American Academy of Pediatrics, the American Academy of Child and Adolescent Psychiatry, and the Pediatric Endocrine Society. (American Academy of Pediatrics, 2018; American Academy of Child and Adolescent Psychiatry, 2019; Pediatric Endocrine Society, 2021.)

41. For all of the reasons above, there is no basis in medicine or science for a categorical exclusion of gender-affirming care for either adolescents or adults.

THE STATE'S EXPERT WITNESSES OFFER NO ALTERNATIVE EFFECTIVE TREATMENT FOR ADOLESCENTS WITH GENDER DYSPHORIA

42. The State's expert witnesses disapprove of existing protocols for treating gender dysphoria in adolescents (and for some of the State's experts, people of any age). As explained above, these opinions are wholly unwarranted. Moreover, the alternative treatments they propose lack any evidence of effectiveness.

² Substance Abuse and Mental Health Services Administration (SAMHSA), *Moving Beyond Change*, Pages 26-27, (2023), available at, <https://store.samhsa.gov/sites/default/files/pep22-03-12-001.pdf> (last visited June 15, 2023).

43. The State's experts appear to believe that psychotherapy can enable a return to a gender identity that matches sex assigned at birth. (*See, e.g.*, Corr. Nangia Report ¶ 55 (stating that among her adolescent patients, "the vast majority realigned with their natal sex over the course of treatment".)) Efforts were made in the past to assist patients to come to identify with their sex assigned at birth but those efforts have proven to be ineffective and harmful and, thus, treatment with the goal of changing a person's gender identity are no longer considered ethical. (Coleman, et al., 2012, at 16; American Psychological Association, 2021).

44. Dr. Nangia also appears to suggest that as an alternative to medical interventions, health care providers can address gender dysphoria by helping patients and their parents understand that there are options beyond sex-stereotyped behaviors, and that such gender nonconforming behavior should not be pathologized or "seen as something to be concerned about." (Nangia ¶ 50.) This represents a misunderstanding of gender dysphoria and its diagnosis and treatment. If a patient's distress relates only to a sense of limitation on behaviors related to gender and they are not experiencing gender dysphoria with clinically significant distress or social or occupational impairment lasting at least 6 months, they would not meet the criteria for diagnosis and medical treatment.

45. The State's experts incorrectly point to "watchful waiting" as an alternative treatment approach to the existing treatment paradigms outlined in the WPATH SOC and the Endocrine Society Guideline. (*See, e.g.*, Cantor Report ¶ 257.) "Watchful waiting" refers only to prepubertal children, not to adolescents. The term was coined by the same Dutch researchers who pioneered the use of puberty blockers once the same children reached puberty, and found that puberty blockers, hormones, and later surgery successfully treated gender dysphoria in the same patients once they were of developmental stage for puberty blockers. (Ehrensaft, 2017). The result was that mental health outcomes significantly improved in the adolescents who received transition care in

the study. (de Vries, et al., 2014). Other studies have also shown improvement in mental health measures in transgender adolescents with gender-affirming medical treatment. (*e.g.*, van der Miesen, et al., 2020; Kuper, et al., 2020). There is no medical basis for denying these treatments to transgender adolescents, which would serve no purpose other than to subject them to needless suffering and harm, and there is no alternative treatment for transgender adolescents known as “watchful waiting.”

46. The State’s experts rely significantly on the work of Kenneth Zucker in support of “watchful waiting.” But Zucker recognizes the need for medical interventions for gender dysphoria in adolescence and does not suggest that watchful waiting is appropriate for adolescents. (Zucker, et al., 2010). His clinic in Toronto provided puberty blockers and hormone therapy to adolescents with gender dysphoria. (Zucker, et al., 2010). Similarly, the Dutch researchers who coined the term watchful waiting for prepubertal children did the seminal research on medical interventions for those patients whose gender dysphoria persists until adolescence. (de Vries, 2011; Steensma, 2011; de Vries, 2014).

47. The State’s experts incorrectly claim that, in the absence of receiving medical care, most transgender youth will naturally “desist” from being transgender. Though numbers vary by study, desistance is a pre-pubertal phenomenon. Older longitudinal studies included gender nonconforming children who were not transgender due to the broad criteria for the since-abandoned “gender identity disorder in children” diagnosis, and the one large modern American longitudinal study showed very low desistance rates. (Olson, et al, 2022). Moreover, because no medical treatment, let alone irreversible medical and surgical interventions, is used prior to puberty, the persistence and desistance statistics of pre-pubertal children do not inform the decision whether or not to initiate these treatments.

48. To be clear, the desistance studies cited by the State’s experts focused on pre-

pubertal children. Whatever conclusions can be drawn from them about the likelihood of persistence of gender dysphoria in pre-pubertal children, which again is uncertain given the diagnostic limitations identified above, data indicate that once youth reach the beginning of puberty and identify as transgender, desistance is rare. (DeVries, et al., 2011; Wiepjes, et al., 2018; Brik, et al., 2020; van der Loos, 2022). This data is consistent with clinical experience. In fact, the Amsterdam and Toronto gender centers that published the desistance data on pre-pubertal children referenced above provided medical interventions to youth whose gender dysphoria persisted into adolescence. (Zucker, et al., 2010, DeVries, et al., 2014). In sum, while “watchful waiting” is an approach for prepubertal children followed by some clinicians, it is not an accepted approach used with adolescents.

49. At times, the State’s experts appear to recognize that “watchful waiting” is a treatment modality for prepubertal children and not adolescents. (*See, e.g.*, Cantor ¶ 246.) Yet they still suggest that “watchful waiting” is an alternative to medical interventions such as hormone therapy for adolescents even though there is no evidentiary support for applying “watchful waiting” to patients once they have started puberty.

50. There is no basis for the State’s experts’ suggestion that providing gender-affirming medical care will cause youth with gender dysphoria who would otherwise desist to, instead, persist. This claim erroneously relies on the assertion that social transition in prepubertal children can cause their gender dysphoria to persist into adolescence. The fact that there is a correlation between social transition prior to puberty and persistence does not establish that social transition *causes* persistence of gender dysphoria. As the Steensma study cited by the State’s experts reported (*see* Steensma, 2013), the intensity of gender dysphoria prior to puberty predicted persistence, and children with more intense dysphoria were more likely to socially transition. Rae, et al., 2019, also found that stronger cross-sex identification in pre-pubertal youth was associated

with future social transition. Second, whatever conclusions can be drawn from these desistance studies about the impact of gender affirmation on the persistence rates in prepubertal children, as discussed above, this research does not apply to adolescents with gender dysphoria, for whom desistance is rare, and the treatments banned by Alabama's law are not indicated until adolescence.

51. The suggestion that adolescents can just wait until they are 18 years old to get care ignores the harm of not providing the care. Allowing endogenous puberty to advance is not a neutral decision. For many adolescents, the development of secondary sex characteristics that do not match their gender identity can have a severe negative impact on their mental health and can exacerbate lifelong dysphoria because some of those characteristics are impossible to change later through surgeries.

**THE STATE'S EXPERTS DRAW INAPPROPRIATE CONCLUSIONS FROM THE
NUMBERS AND SEX-RATIOS OF GENDER CLINIC REFERRALS**

52. The State's experts devote many pages to the increase in the numbers of referrals to gender clinics, and changes in sex ratios of patients. (*See, e.g.*, Corr. Nangia Report ¶ 20-36; Cantor ¶¶ 65-67.) As an initial matter, in their caricature of doctors pushing medical transition, the State's experts say the field is ignoring and avoiding exploration of these developments. That is not the case. Indeed, the WPATH SOC 8 Adolescent chapter specifically discusses the increase in referrals to gender clinics and the sex ratios of these young patients (Coleman, et al. 2022). But the State's experts draw unsupported conclusions about the rise in number of referrals and changes in sex ratios observed in some clinics. They claim this means adolescents are adopting a transgender identity due to "social contagion," leading them to undergo irreversible medical treatments they later regret. This conclusion is baseless.

53. The rise in numbers of referrals is hardly surprising given the greater awareness on the part of youth and their parents of what gender dysphoria is and that care is available, as well

as the significant increase in the number of clinics available to provide care. In addition, the stigma associated with being transgender, while still significant, has lessened in recent years. Coming out to parents and seeking care are options that did not exist for many youth until recently, so an increase in numbers of referrals to gender clinics is not surprising. While there is a documented increase in clinic referrals, the State's experts exaggerate the increase by making inappropriate comparisons. For example, Dr. Nangia cites surveys of youth who identify as transgender to suggest that these show a "rise of gender dysphoria that [she] observe[s] in [her] own patient population" as well. (Corr. Nangia Report ¶¶ 17-20.) These statements conflate different issues. Transgender is an identity, and only started being asked in the general population in studies published in the last 12 years. There is a great difference between the percentages of people responding to a question of identity with the number of people receiving a diagnosis or care for Gender Dysphoria— fewer than 1 in 1000 people are diagnosed with Gender Dysphoria. Indeed, Defendants' expert Dr. Cantor confirms this point: "Research from youth with formal diagnoses and attending clinics cannot be extrapolated to self-identifying youth and those responding to surveys advertised on social media sites." (Cantor Report ¶ 67.)

54. Put another way, the State's experts are comparing apples to oranges. An apples to apples comparison of self-identified transgender people over time shows a very different picture. Until the past decade, little data on the number of people identifying as transgender was available. From 2007 to 2009, a question asking whether the respondent identified as transgender was added to a large population-based health survey conducted in Massachusetts, and 0.5% of study participants identified as transgender. (Conron, et al., 2012). Since then, this question was added to large health surveys in other states, and analyses of surveys done in 2014 found that, nationally, 0.5-0.6% of adults identified as transgender, and 0.7% of youth ages 13 to 17 identified as transgender. (Crissman, et al., 2017; Flores, et al., 2016; Herman, et al., 2017).

55. While increases in numbers and changes in sex ratios of patients referred to some gender clinics have been reported, since the number of patients referred to gender clinics reflect only a small fraction of the people identifying as transgender, these changes may reflect changes in referral patterns to clinics rather than changes in the number of people identifying as transgender.

56. Sex ratios of patients vary from clinic to clinic and over time. When I was the psychiatrist for the Dimensions Clinic for transgender youth in San Francisco from 2003 to 2020, a consistent majority of my patients were assigned female at birth. Other clinics have had more assigned male at birth patients. The rise in numbers and percentage of patients assigned female at birth observed at some clinics in recent years is not surprising given the historical development of the study of gender dysphoria in youth. The first large American study of gender non-conforming youth was the Feminine Boy Study at UCLA. There was significant societal discomfort with and rejection of boys who departed from sex stereotypes—the director of the study referred to them as “sissy boys” in the book resulting from the study—and these boys often experienced bullying from peers. In this context, boys who were perceived to be effeminate were the population brought to psychiatrists by their parents and were the population that was initially studied by researchers. (Green, 1987). Parents were not as concerned about gender non-conforming girls as they were more socially accepted. There was also less awareness among the general public of the existence of transgender males and that transitioning was an option for individuals assigned female at birth who were experiencing gender dysphoria. The increase in awareness in recent decades made it possible for individuals who ultimately came to identify as transgender men to come out and seek care.

57. There is a social or cultural influence on gender in the sense that social and cultural developments make it more possible for youth struggling with gender dysphoria to access care.

But there is no evidence that peer influence determines an individual's gender identity. The State's experts point to Lisa Littman's study discussing what she called "rapid onset gender dysphoria," where parents reported that their children who suddenly identified as transgender boys frequently reported consuming social media about transgender issues and having transgender friends. (*See e.g.*, Cantor ¶ 137; Laidlaw ¶ 221). While there may be rapid onset parental awareness of a child's transgender status, as is also the case when lesbian and gay youth come out to their parents, that does not mean the gender dysphoria was sudden to the adolescent. In any case, this study does not provide evidence that peers and social media cause individuals to be transgender. As with other marginalized groups, such as lesbian and gay people, it is not unusual to seek out others like you. Nor is it unusual to seek out support and information online. Moreover, the diagnostic criteria for gender dysphoria are rigorous and if there were individuals claiming a transgender identity to fit into a peer group, they would not meet the criteria for a gender dysphoria diagnosis let alone be deemed to need medical interventions.

**SOME OF THE STATE'S EXPERT WITNESSES QUARREL WITH THE
FIELD OF PSYCHIATRY AND THEIR OPINIONS REFLECT THEIR LACK
OF EXPERIENCE IN THE FIELD**

58. Gender dysphoria is a psychiatric diagnosis. Some of the State's expert witnesses more generally critique the diagnosis of gender dysphoria for being based on self-reports from patients. Dr. Cantor asserts that "gender identity refers to subjective feelings that cannot be defined, measured, or verified by science." As such, gender identity cannot be a "valid construct" since it is not "both objectively measurable and falsifiable with objective testing." (Cantor ¶ 109.) Dr. Laidlaw makes similar points when he states that "gender identity is a psychological concept" and that there are no "imaging, laboratory tests, biopsy of tissue, autopsy of the brain, genetic testing, or other biological markers that can identify the gender identity." (Laidlaw ¶ 20.) But clinical interviews with patients are typically used to diagnose other DSM diagnoses and determine

treatment. This widely used assessment tool is not unique to gender dysphoria. This process is similar to that of diagnosing other DSM diagnoses, to determine treatment for other disorders. The clinical examination, which includes taking a history of symptoms from a patient, is not only used to determine most psychiatric treatment, but also many medical and pediatric treatments. Moreover, the validity and reliability of DSM-5 diagnoses were assessed and determined in the process of creating the DSM-5. It is surprising to hear any medical professional dismiss the importance of taking a good history from a patient. Even medical disorders that rely on blood tests and imaging for a definitive diagnosis rely first on taking a history to know which tests to order. And treatment of many DSM diagnoses is considered medically necessary and covered by Medicaid and other insurance programs.

59. With respect to gender dysphoria in particular, WPATH's SOC 8 sets forth criteria for assessing adolescents that include a "comprehensive biopsychosocial assessment including relevant mental health and medical professionals" and that "[m]ental health concerns (if any) that may interfere with diagnostic clarity, capacity to consent, and gender-affirming medical treatments have been addressed; sufficiently so that gender-affirming medical treatment can be provided optimally." (Coleman, et al., 2022).

**THE STATE'S EXPERT WITNESSES' ATTEMPTS TO DISCREDIT THE WPATH
STANDARDS OF CARE AND ALL OF THE PROFESSIONAL GROUPS THAT
ACCEPT THEM ARE BASELESS**

60. The State's expert witnesses characterize WPATH and USPATH as ideological, non-scientific, advocacy organizations, open to transgender activists outside of the health field. (*E.g.* Laidlaw ¶ 178-191; Cantor Supp. Report ¶ 119; Kaliebe Supp. Report.) Many WPATH and

USPATH members are academics who publish in peer-reviewed journals. Many are academic leaders in endocrinology, internal medicine, plastic surgery, urology, psychiatry, psychology, and other disciplines of the health sciences. WPATH restricts its full membership to those with professional credentials and most members are licensed clinicians. The fact that WPATH engages in advocacy on behalf of its patient population for access to beneficial care is typical of medical associations. For example, the American Psychiatric Association advocates for a wide range of public policy changes to improve access to mental health care, *e.g.*, for migrants and for incarcerated people.³

61. I have been involved with WPATH for many years and have 35 years of experience treating people with mental illnesses. And there are many other experienced mental health professionals in WPATH. These mental health professionals are licensed and regulated by state licensing boards, and most provide care to both cisgender and transgender clients—including those with serious mental illness. In my more than three decades of experience, I have provided training and instruction to thousands of healthcare providers across the United States, as well as at UCSF. It has not been my experience that practitioners in this field are unqualified. To the contrary, they are highly specialized professionals living up to their calling of providing the best care possible for their patients.

62. The State's expert witnesses also argue that dissenting views are not tolerated in

³ See American Psychiatric Association. (2019). Position Statement on the Care of Medically Vulnerable Migrants in the United States. *Available at* <https://www.psychiatry.org/File%20Library/About-APA/Organization-Documents-Policies/Policies/Position-Care-of-Medically-Vulnerable-Migrants-in-the-US.pdf>; American Psychiatric Association. (2016). Position Statement on Treatment of Substance Use Disorders in the Criminal Justice System. *Available at* <https://www.psychiatry.org/File%20Library/About-APA/Organization-Documents-Policies/Policies/Position-2016-Substance-Use-Disorders-in-the-Criminal-Justice-System.pdf>; *see generally* American Psychiatric Association Policy Finder, *available at* <https://www.psychiatry.org/home/policy-finder>.

WPATH. Yet, as some of them noted, Dr. Marci Bowers has expressed some criticism about how some in the field are practicing, and she is the president of WPATH. I have attended several WPATH conferences since 2001, and have been a member of the Scientific Committees that have reviewed abstract submissions for the conferences, and the diversity of views presented and discussed has always been notable. For example, as chair of the Scientific Committee for the 2017 USPATH conference, I helped organize a panel of therapists and trainees who had themselves detransitioned, and the presentations and discussion were well- received by attendees.

THE STATE’S EXPERT WITNESSES MISREPRESENT THE AVAILABILITY OF TREATMENT FOR ADOLESCENTS WITH GENDER DYSPHORIA IN EUROPE

63. Dr. Cantor falsely asserts that a number of countries “endorse psychotherapy as the treatment choice for minors, with medical interventions representing a method of last resort, if permitted at all.” He goes on, “[t]hese range from medical advisories to outright bans on the medical transition of minors.” (Cantor ¶ 16). In fact, none of the countries he discussed— U.K., Finland, France, Norway, or Sweden—has a law banning transition care to minors, and in none of these countries is such care for minors unavailable.

64. The UK National Health Service recently stated that the NHS will not “routinely” provide puberty blockers. However, it has previously stated that it will provide puberty blockers in “exceptional” circumstances and in investigational settings, in which data on outcomes are collected. The NHS is proceeding with the opening of regional centers to provide gender affirming medical care to minors. In addition, private clinics have received government approval to provide gender affirming care to minors.⁴

65. Of note, the UK NHS proposals have been criticized by the European Professional

⁴<https://www.england.nhs.uk/wp-content/uploads/2024/03/clinical-commissioning-policy-gender-affirming-hormones-v2.pdf>

Association for Transgender Health (EPATH), representing gender programs across Europe. Criticisms included that the UK systematic review excluded studies of puberty blockers which also included study of hormones, and criticized restriction of care.⁵

66. Swedish, Finnish and Norwegian national health authorities, which the State's experts also reference, have recommended caution and more research but have not banned care for transgender youth. In these countries, transition care for adults and youth is fully paid for by the national health system of each country.

67. There remains strong international support for the continued provision of gender-affirming medical care. Experts from the around the world have collaborated on WPATH Standards of Care Version 8. I was chapter lead of the Mental Health chapter of this version, and the authors of that chapter include psychiatrists who are leaders of transgender health programs in Belgium, Sweden, and Turkey. There is broad agreement in philosophy of care, including support for gender-affirming care and opposition to conversion therapy.

68. Of note, a working group of experts from the German-speaking countries of Europe has released a draft of policy for care for minors in Germany, Austria, and Switzerland. It recommends puberty blockers at Tanner stage 2, for 6 months to a maximum of 2 years, followed by hormone therapy when indicated, a protocol similar to that in SOC 8.⁶

ADDITIONAL POINTS IN RESPONSE TO THE STATE'S EXPERTS

69. I have only had a few patients over the years who have been forced to detransition,

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<https://www.wpath.org/media/cms/Documents/Public%20Policies/2023/30.10.23%20EPATH%20-%20WPATH%20Joint%20NHS%20Statement%20Final.pdf>

⁶ <https://archive.ph/20240115171045/https://www.faz.net/aktuell/feuilleton/experte-georg-romer-ueber-transsexualitaet-bei-jugendlichen-19241551.html>.

because of incarceration or institutionalization, or other circumstances, and results have been uniformly disastrous, with suicide and self-harm attempts, depression, and deterioration of functioning. Some of my patients forced to detransition were receiving intensive mental health care at the time, on psychiatric wards. But no amount of psychotherapy could counter the deleterious effects of forced detransition and the withholding of needed gender-affirming medical and surgical care.

70. Regarding the State's experts' use of Dhejne et al., 2011 for the proposition that gender-affirming is not effective (*e.g.*, Laidlaw Report, ¶ 208; Cantor Report ¶ 149) Dr. Dhejne has stated that such conclusions misinterpret her study: "The findings have been used to argue that gender-affirming treatment should be stopped since it could be dangerous (Levine, 2016) ... Despite the paper clearly stating that the study was not designed to evaluate whether or not gender-affirming is beneficial, it has been interpreted as such." (Dhejne, 2017). Indeed, the Dhejne et al. study explicitly states that the study cannot be used to make any conclusions about the outcome of surgery. (Dhejne, et al., 2011). And since 2011, Dr. Dhejne has repeatedly stated that interpretations like the above are incorrect. Dr. Dhejne compared morbidity and mortality statistics from a national database of transgender people with those in the general Swedish population, and only made comparisons between these groups, not before and after surgery, or transgender people with surgery and without surgery, or "year 7" with prior years. (*e.g.*, Dhejne, 2017). Despite these warnings the State's experts continue to improperly use Dr. Dhejne's study. Moreover, the actual data from Dhejne's study shows there were ten suicides in the national morbidity and mortality database of transgender people over a period of thirty years compared to five suicides from matched controls in the general population during that same period.

71. Nor is it true, as Dr. Cantor contends, that a "very large dataset from the U.K." showed that youth referred to the clinic for evaluation and treatment for gender dysphoria

“committed suicide at a rate of five times that of the general population. (Cantor ¶ 149) (citing Biggs 2022). That U.K. data is based on four probable suicides in transgender youth, including two who were on the waiting list for care and two who were receiving care.

72. The State’s experts also focus on the two suicides that occurred during the Chen study, with one expert claiming they “show the inherent danger of gender affirmative therapy found in the Dhejne study.” (Laidlaw ¶ 209.) While any suicide is very concerning, these claims are simply untrue. There is zero evidence that the two suicides were due to receiving gender affirming care and as other studies have found, medical care significantly reduces suicidality. *See, e.g.*, (Kaltiala, et al., 2020) (finding that dramatically fewer youth (35% versus 4%) needed treatment for suicidality after starting hormone medication).

73. The State’s expert witnesses point to elevated rates of mental health problems and substance use in the transgender community, suggesting that being transgender is the cause of these negative outcomes and, thus, something doctors should try to prevent. (*See e.g.*, Laidlaw ¶ 219.) As discussed above, being transgender is not something doctors can prevent. And these comments disregard the significant stigma transgender people continue to face, and stigma is a well-documented risk factor for mental health and substance use issues.

Dr. James Cantor

74. Dr. Cantor’s report indicates that his work at the University of Toronto from 1998 to 2018 was limited to its adult forensic program, that is, Dr. Cantor worked with people with paraphilias, and in particular with pedophiles. Paraphilias are persistent and recurrent sexual interests, urges, fantasies, or behaviors of marked intensity involving objects, activities, or even situations that are atypical in nature. Being transgender is not a paraphilic disorder. Dr. Cantor is well known for this work, but not for his work with transgender people. In testimony in this case, Dr. Cantor stated that he had not personally diagnosed any child or adolescent with gender dysphoria, and that he had

personally never treated any child or adolescent for gender dysphoria.

75. Dr. Cantor focuses on desistance rates of prepubertal children brought into clinics in Toronto and Amsterdam. (Cantor ¶ 134.) However, given that these prior longitudinal studies included gender nonconforming children who were not transgender due to the broad criteria for the since-abandoned “gender identity disorder in children” diagnosis, or who did not qualify even for the gender identity disorder in children diagnosis, these studies shed little light into questions of persistence and desistance of gender dysphoria in pre-pubertal children. In fact, a more recent study, which is the only large American prospective study that has been published in the past 35 years, showed much lower desistance rates (Olson, et al., 2022). Specifically, only 2.5% of the youth studied identified with their sex assigned at birth.⁷

76. In any event, longitudinal studies show that gender dysphoria in adolescence usually persists (DeVries, et al., 2011; van der Loos, 2022). And no medical treatment, let alone irreversible medical interventions, is used prior to puberty. Even in the clinics with higher desistance rates for *pre-pubertal* children upon which Dr. Cantor relies, puberty blockers and hormones were used when gender dysphoria persisted after the onset of puberty. In sum, the desistance statistics of *pre-pubertal* children do not inform the decision whether or not to initiate these treatments in adolescents and adults.

77. Dr. Cantor references a study by Kaltiala et al. in 2020 claiming that the authors concluded from the study that “the youth who were functioning well after transition were those who were functioning well before transition, and those who were functioning poorly before transition continued to function poorly after transition.” (Cantor Report, at ¶ 22). In fact, in

⁷ Of these, youth with cisgender identities were more common among youth whose initial social transition occurred before age 6 years; their retransitions often occurred before age 10 years. And, again, no medical treatment is recommended for any transgender person prior to the onset of puberty.

Kaltiala et al. 2020, of the 52 youth studied, 54% needed treatment for depression before initiation of gender-affirming hormones, versus 15% needing treatment for depression after initiation of gender-affirming hormones. In the study, 48% of the trans youth needed treatment for anxiety before starting hormones, versus 15% after starting hormones. And 35% of the trans youth needed treatment for suicidality/self-harm before starting hormones, versus 4% after initiation of gender affirming hormones.

78. Dr. Cantor states that the study by Kuper, et al. 2020 did not show benefit from treatment. This statement is misleading at best. Dr. Cantor says the Kuper study shows increased suicidal ideation and attempts after treatment compared with before treatment—but the measurement period for the numbers were 1-3 months before the study versus 11-18 months after the study, explaining the higher numbers in the second, longer period. This study does not show that treatment increased the patients' rates of suicidality or that they did not benefit from treatment. The article concludes, "Youth reported large improvements in body dissatisfaction ($P < .001$), small to moderate improvements in self-report of depressive symptoms ($P < .001$), and small improvements in total anxiety symptoms ($P < .01$)." Dr. Cantor further states that the study by Achille et al. does not show that those studied benefitted from endocrine treatment. (Cantor ¶ 197.) Again, Cantor's characterization of this study's conclusion is misleading. The results of the paper actually show that, "Mean depression scores and suicidal ideation decreased over time while mean quality of life scores improved over time. When controlling for psychiatric medications and engagement in counseling, regression analysis suggested improvement with endocrine intervention. This reached significance in male-to-female participants."

79. After lengthy criticism of literature supporting gender affirming care, which Dr. Cantor distorts through cherry-picking, Dr. Cantor uses Diaz and Bailey (2023) to draw the conclusion that the body of research supporting gender-affirming care cannot be applied to current

transgender youth. (Cantor ¶ 137.) Diaz and Bailey's paper has received extensive criticism, including that its first author is anonymous and did not seek the human subjects review that is a standard requirement, and that the data was obtained from parents of trans people visiting a site that is named after the phenomenon the paper purports to examine—a site that opposes gender affirming care. The second author, Dr. Bailey, is listed as an editorial board member of the journal that published the paper, despite the fact that Bailey's institutional review board at Northwestern University refused to approve the research protocol. Ultimately, Springer Nature, publisher of the journal, retracted the article, reportedly due to ethical concerns, including lack of informed consent.⁸

80. Dr. Cantor refers to systematic reviews of the literature of gender affirming care for minors. It is important to put GRADE scores of systematic reviews in context. Chong, et al., 2023 found that only 36% of national guidelines for care were based on strong or moderate GRADE scores. Recommendations were often based on a comparison with alternatives; there is no evidence base to support conversion therapy or other psychotherapeutic interventions as an alternative for those who need gender-affirming medical treatment.

81. In one large study of systematic reviews, only 5.6% of all medical interventions, and 0.0% of all endocrine interventions had a high GRADE score. Most medical interventions had low or very low GRADE scores. (Howick, et al 2022).

82. In other studies, including one of all systematic reviews in the Cochrane database

⁸ Diaz S, Michael Bailey J. Retraction Note: Rapid Onset Gender Dysphoria: Parent Reports on 1655 Possible Cases. Arch Sex Behav. 2023 Jun 14. doi: 10.1007/s10508-023-02635-1. Epub ahead of print. PMID: 37314659; *see also*, Ellie Kincaid, *After backlash, publisher to retract article that surveyed parents of children with gender dysphoria, says co-author*, (May 24, 2023), <https://retractionwatch.com/2023/05/24/after-backlash-publisher-to-retract-article-that-surveyedparents-of-children-with-gender-dysphoria-says-co-author>.

published over an 18-month period, only a small percentage of systematic reviews of medical interventions had a high GRADE score; for a majority of systematic reviews of medical interventions, GRADE scores were low or very low. (Fleming et al., 2016, Howick, et al., 2020). In a study of systematic reviews of interventions in anesthesiology, critical care medicine, and emergency medicine, only 10% had high GRADE scores, but banning the practice of anesthesiology, critical care medicine, and emergency medicine has not been contemplated (Conway, et al, 2017). For complex interventions, for which gender affirming care certainly qualifies, no high GRADE scores were found for systematic reviews of any complex intervention. (Movsisyan, et al., 2016).

83. In short, the State's experts use systematic studies in ways they are not intended to be used. If only medical interventions with high GRADE scores were permitted by law, most medical interventions and all complex interventions, would be banned.

Dr. Cantor's Supplemental Report

84. In his supplemental report, Dr. Cantor cites several recent publications as further support for his opinions. None of these recent publications alters my opinion that medical treatment of gender dysphoria in adolescents is safe, effective and medically necessary where indicated. In fact, other recent publications have added to the large and growing body of research demonstrating the effectiveness of medical treatment.

85. Cantor cites Morandini et al. (2023) to argue that social transition does not improve mental health in children and adolescents. As an initial matter, this study examined only social transition. Alabama's law does not ban social transition. The article therefore has little, if any, relevance to an appraisal of the effectiveness of medical treatments for gender dysphoria. Moreover, other research has demonstrated the benefits of social transition for minors with gender dysphoria. Olson et al. (2022) conducted a large prospective study of children and adolescents,

finding significant mental health improvements for transgender youth who socially transition.

86. Cantor also cites Glintborg et al. (2023) and Kaltiala (2023) to argue that there is no mental health benefit from medical treatment of gender dysphoria. The Glintborg study found that mental health diagnoses increased in the first year after index date, which was the date of the gender dysphoria diagnosis. The paper notes that this increase could be because study participants who had not previously sought mental health evaluations or care did so after receiving their gender dysphoria diagnosis. Importantly, for the participants in this study, hormones, when prescribed, were prescribed on average about 2 years after the index date. Starting in year 2 after the index date, mental health diagnoses among the participants declined to the point where the numbers were similar to the index date numbers. Overall, the study states in conclusion, “In this study, mental health was stabilized during gender-affirming care, but mental health was still impaired in transgender persons compared to age-matched controls.”

87. Kaltiala (2023) was a registry study that measured the number of psychiatric visits. These patients in this study were largely adults, with a mean age of 24 years. The study found that the number of psychiatric visits increased more among those receiving medical treatment for gender dysphoria than those who did not. The total number of mental health visits, however, is not a measure that can demonstrate that medical treatment is ineffective in treating gender dysphoria. This disconnect between the number of mental health visits and an assessment of the effect of initiation of hormones in adolescents is shown clearly in Kaltiala’s earlier study (Kaltiala et al 2020), in which the share of adolescents having psychiatric visits changed little, but the number of adolescents receiving psychiatric visits for depression, anxiety, or suicidality dropped dramatically. Kaltiala (2020) therefore suggests that transgender adolescents elect to continue receiving mental health care for other reasons even after their depression, anxiety, and suicidality resolve. Such a result would be fully in keeping with the SOC 8 recommendation of continued

mental health follow-ups for adolescents.

88. McGregor et al. (2024) examined the effects of puberty blockers in a retrospective study of all youth between the ages of 13 and 17 who were assessed for hormone readiness at a multispecialty gender clinic between 2017 and 2021. The study compared youth who had previously received puberty blockers with those who had not at the time of assessment for hormones. Puberty blockers were associated with significant reductions in self-reports of total mental health problems, including internalizing problems, anxiety, depression, stress, and suicidal thoughts. Dr. Cantor minimizes these findings and speculates that they may be influenced by comparing youth who experience childhood-onset gender dysphoria with those who experience “Rapid Onset Gender Dysphoria” (ROGD). While there are some limitations in comparing youth who received puberty blockers at the time of hormone assessment to those who did not, there is no evidence that any differences are due to so-called ROGD, which most practitioners in the field do not recognize as a distinct phenomenon. McGregor adds further support to the body of evidence supporting the safety and effectiveness of puberty blockers for treatment of gender dysphoria.

89. The systematic reviews cited in Dr. Cantor’s supplemental report also do not change my opinions. As an initial matter, systematic reviews do not report new research findings, but are conducted to assess existing research. Thompson et al. (2023) used a selection process for papers that reduced 6202 papers to just five papers that reported mental health outcomes. While improvement in mental health outcomes were apparent in these studies, five studies are an insufficient representation of the multitude of studies that measure outcomes from transgender care. This is a weakness generally of systematic reviews. Similarly, Christensen et al. (2023) assessed the quality of available studies on suicidality of medical treatment for gender dysphoria in people age 24 and under. As I discuss above, most medical interventions, for gender dysphoria or any other condition, lack high or medium GRADE scores on systematic review.

90. Dr. Cantor also discusses the systematic review by Stolk et al. (2023) concerning attitudes toward parenting among transgender youth and adults. Although Cantor cites this review as evidence that “medical transition will later be perceived by the patient as having inflicted severe harm,” the studies addressed in the review do not support such a conclusion. The WPATH SOC 8 state that the informed consent process for hormone therapy in adolescents should include a discussion of fertility preservation options. There are many reasons why adolescents receiving hormone replacement therapy may not use fertility preservation options, one of the most important being that health insurance often does not cover fertility preservation services. Transgender individuals who have received hormone therapy can and do have children, both biological and nonbiological, whether or not fertility preservation occurs. If anything, the Stolk review provides support for expanding the availability of insurance coverage for fertility preservation. It does not support banning medical treatment for gender dysphoria in adolescents.

91. Dr. Cantor’s supplemental report also ignores other recent publications that add to the growing body of evidence demonstrating the effectiveness of medical treatment for gender dysphoria.

92. Cavve, et al (2024) examined the outcomes of 548 of the 552 youth referred to the pediatric gender clinic in Perth, Australia. This study is exceptional in medical literature generally for the extremely high share of former patients the researchers were able to reach. Of 196 youth who were started on puberty blockers or hormones, only 2 (1.0%) discontinued medical treatment because of reidentification with birth sex.

93. Bruce, et al. (2023), reported on 235 patients who had gender-affirming mastectomy at one center over 30 years, from 1990-2020. On a scale of 1.0-5.0, the median Satisfaction with Decision score in those who had surgery was 5.0. On a scale of 0.0-100.0, the median Decision Regret score was 0.0. These median scores are the highest satisfaction and lowest regret levels

possible on the measures used.

94. Fisher, et al. (2023) showed a significant improvement in psychological functioning, with initiation of puberty blockers, including a decrease in suicidality, depression, anxiety, and body image concerns.

95. A randomized clinical trial—adult participants were randomized to a control group of the usual 3 month wait to initiate testosterone treatment, vs. and intervention group of no wait—found that the intervention group had a statistically significant decrease in gender dysphoria, depression, and suicidality vs. the control group. This included 52% resolution of suicidality in those receiving testosterone compared with a 5% resolution of suicidality in those waiting to receive testosterone. (Nolan, et al. 2023)

96. The American Psychological Association in February 2024 released a policy statement opposing state bans on gender affirming care and the campaign of misinformation accompanying these bans. The APA policy statement states in part, "WHEREAS state bans on gender-affirming care and the imposition of legal penalties on providers engaging in evidence-based care disregard the comprehensive body of psychological and medical research supporting the positive impact of gender-affirming treatments,...THEREFORE, BE IT FURTHER RESOLVED that the APA urges support for policies facilitating access to comprehensive, gender-affirming healthcare for children, adolescents, and adults, recognizing the positive impact on mental health outcomes...." (APA, 2024).

Dr. Michael Laidlaw and Dr. Geeta Nangia

97. Dr. Laidlaw is an endocrinologist for adults, with no experience or specialized training as a mental health provider, no apparent experience working with pediatric patients, and no apparent experience providing or researching medical treatment for gender dysphoria. Similarly, Dr. Nangia claims to have treated 550 children and adolescents who at some point met the criteria

for gender dysphoria, but Nangia repeatedly conflates adolescents who exhibit distress over gender nonconforming behavior with those who experience the distress about their bodies that characterizes those that might need medical treatment for gender dysphoria. This makes it difficult for me to believe that Nangia actually has any meaningful experience treating adolescents with gender dysphoria.

98. Defendants' experts opine at length about the "experimental nature" of gender-affirming care. Dr. Nangia also states "there is remarkable controversy and debate over [the WPATH] recommendations and the data that supports them. (Corr. Nangia Report ¶ 131). As explained in detail above, gender-affirming medical interventions are widely recognized in the medical community as safe, effective, and medically necessary for many adolescents with gender dysphoria.

99. One misperception is that hormone therapy is experimental because it is not FDA-approved for the specific application of treating gender dysphoria. (Laidlaw Report ¶ 77.) Medications very commonly are prescribed for off-label uses. All gender-affirming hormone treatments are approved for treatment of other conditions and have been used to treat those conditions, as well as for gender-affirming care, for many years, supporting their safety and efficacy. The U.S. Department of Health and Human Services Agency for Healthcare Research and Quality states, "[Off-label prescribing] is legal and common. In fact, one in five prescriptions written today are for off-label use.

100. Dr. Laidlaw misleadingly cites a review of psychiatric side effects of anabolic steroid abuse in cisgender men (Hall, et al., 2005) to make the claim that testosterone use is dangerous to mental health. (Laidlaw ¶ 142.) In Pope et al. 2000, which was one study cited in the Hall, 2005 paper, even 600mg/week of testosterone usually didn't cause psychiatric symptoms. This dose is several times the typical dose that would be prescribed to transgender adolescents to

treat gender dysphoria. (Pope, et al., 2000).

101. When used at proper doses in transgender males, testosterone is safe and well-tolerated, usually without clinically significant mental health complications. A prospective study showed improved psychological functioning on multiple domains on initiation of testosterone in transgender males. (Keo-Meier, et al., 2015)

CONCLUSION

102. Alabama's categorical exclusion of gender-affirming medical care for transgender adolescents is contrary to widely accepted medical protocols for the treatment of transgender people with gender dysphoria that are recognized by major medical and mental health professional associations in the United States.

103. Decades of medical research and clinical experience have demonstrated that the medical treatments Alabama seeks to bar are safe, effective, and medically necessary to relieve gender dysphoria for transgender people. Any conclusion otherwise is not supported by medical evidence or consensus.

104. Denying gender-affirming medical care to transgender people for whom it is medically indicated puts them at risk of significant harm to their health and wellbeing, including heightened risk of depression and suicidality.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 1st day of April 2024.



Dan H. Karasic, M.D.

Exhibit A

University of California, San Francisco

CURRICULUM VITAE

Name: Dan H. Karasic, MD

Position: Professor Emeritus
Psychiatry
School of Medicine

Voice: 415-935-1511

Fax: 888-232-9336

EDUCATION

1978 - 1982	Occidental College, Los Angeles	A.B.; Summa Cum Laude	Biology
1982 - 1987	Yale University School of Medicine	M.D.	Medicine
1987 - 1988	University of California, Los Angeles	Intern	Medicine, Psychiatry, and Neurology
1988 - 1991	University of California, Los Angeles; Neuropsychiatric Institute	Resident	Psychiatry
1990 - 1991	University of California, Los Angeles; Department of Sociology	Postdoctoral Fellow	Training Program in Mental Health Services for Persons with AIDS

LICENSES, CERTIFICATION

1990	Medical Licensure, California, License Number G65105
1990	Drug Enforcement Administration Registration Number BK1765354
1993	American Board of Psychiatry and Neurology, Board Certified in Psychiatry

PRINCIPAL POSITIONS HELD

1991 - 1993	University of California, San Francisco	Health Sciences Psychiatry Clinical Instructor
1993 - 1999	University of California, San Francisco	Health Sciences Psychiatry Assistant Clinical Professor
1999 - 2005	University of California, San Francisco	Health Sciences Psychiatry

		Associate Clinical Professor
2005 - 2020	University of California, San Francisco	Health Sciences Psychiatry Clinical Professor
2020-present	University of California, San Francisco	Professor Emeritus of Psychiatry

OTHER POSITIONS HELD CONCURRENTLY

1980 - 1980	Associated Western Universities / U.S. Department of Energy	Honors	UCLA Medicine Undergraduate Research Fellow
1981 - 1981	University of California, Los Angeles; Medicine American Heart Association, California Affiliate	Summer Student	UCLA Research Fellow
1986 - 1987	Yale University School of Medicine; Heart Association, Connecticut Affiliate	Medical Student	Psychiatry American Research Fellow
1990 - 1991	University of California, Los Angeles	Postdoctoral	Sociology Fellow
1991 - 2001	SFGH Consultation-Liaison Service; AIDS Care	Attending	Psychiatry Psychiatrist
1991 - 2001	AIDS Consultation-Liaison Medical Elective	Course Director	Psychiatry Student
1991 - present	UCSF Positive Health Program at San Hospital (Ward 86) Outpatient	HIV/AIDS	Psychiatry Francisco General Psychiatrist
1991 - present	UCSF AHP (AIDS Health Project/Alliance Health Project)	HIV/AIDS	Psychiatry Outpatient Psychiatrist
1994 - 2002	St. Mary's Medical Center CARE Unit. The CARE Unit specializes in the care of patients with AIDS dementia.	Consultant	Psychiatry
2001 - 2010	Depression and Antiretroviral Adherence Study (The H.O.M.E. study: Health Outcomes of Mood Enhancement)	Clinical Director	Psychiatry and Medicine
2003 - 2020	Transgender Life Care Program and Castro Mission Health Clinic Center	Psychiatrist	Dimensions Dimensions Clinic,
2013 - 2020	UCSF Alliance Health Project, Co-lead, Transgender Team	Co-Lead and Psychiatrist	Psychiatry

HONORS AND AWARDS

1981	Phi Beta Kappa Honor Society	Phi Beta Kappa
1990	NIMH Postdoctoral Fellowship in Services for People with AIDS (1990-1991)	National Institute of Mental Health Mental Health
2001	Lesbian Gay Bisexual Transgender Leadership Award, LGBT Task Force of the Cultural Competence and Diversity Program	SFGH Department of Psychiatry
2006	Distinguished Fellow	American Psychiatric Association

- 2012 Chancellor’s Award for Leadership in LGBT Health UCSF
- 2023 Alumni Seal Award for Occidental College Professional Achievement

MEMBERSHIPS

- 1992 - present Northern California Psychiatric Society
- 1992 - present American Psychiatric Association
- 2000 - 2019 Bay Area Gender Associates (an organization of psychotherapists working with transgendered clients)
- 2001 - present World Professional Association for Transgender Health

SERVICE TO PROFESSIONAL ORGANIZATIONS

- 1981 - 1982 The Occidental News Editor
- 1984 - 1985 Yale University School of Medicine Class President
- 1989 - 1991 Kaposi's Sarcoma Group, AIDS Project Los Angeles Volunteer
Facilitator
- 1992 - 1996 Early Career Psychiatrist Committee, Association of Gay and Lesbian Psychiatrists Chair and Lesbian Psychiatrists
- 1992 - 1996 Board of Directors, Association of Gay and Lesbian Psychiatrists Member
- 1993 - 1993 Local Arrangements Committee, Association of Gay and Lesbian Psychiatrists Chair
- 1994 - 1995 Educational Program, Association of Gay and Lesbian Psychiatrists, 1995 Annual Meeting Director
- 1994 - 1998 Board of Directors, BAY Positives Member
- 1994 - 2020 Committee on Lesbian, Gay, Bisexual and Transgender Issues, Northern California Psychiatric Society Member
- 1995 - 1997 Board of Directors, Bay Area Young Positives. BAY Positives is the nation's first community-based organization providing psychosocial and recreational services to HIV-positive youth President
- 1995 - 1997 Executive Committee, Bay Area Young Positives. Chair
- 1996 - 2004 Committee on Lesbian, Gay, Bisexual and Transgender Issues, Northern California Psychiatric Society Chair
- 1998 - 2002 City of San Francisco Human Rights Commission, Bisexual Transgender Advisory Committee Member
- 2000 - 2004 Association of Gay and Lesbian Psychiatrists. Vice President Responsible for the organization's educational programs
- 2004 - 2005 Association of Gay and Lesbian Psychiatrists President-elect
- 2005 - 2007 Caucus of Lesbian, Gay, and Bisexual Psychiatrists of the American Psychiatric Association Chair
- 2005 - 2007 Association of Gay and Lesbian Psychiatrists President
- 2007 - 2009 Association of Gay and Lesbian Psychiatrists Immediate Past

		President
2009 - 2010	Consensus Committee for Revision of the Sexual and Gender Identity Disorders for DSM-V, GID of Adults subcommittee. (Wrote WPATH recommendations as advisory body to the APA DSM V Committee for the Sexual and Gender Identity Disorders chapter revision.)	Member
2010 - 2011	Scientific Committee, 2011 WPATH Biennial Symposium, Member Atlanta	
2010 -2022	World Professional Association for Transgender Care Standards of Care Workgroup and Committee (writing seventh and eighth revisions of the WPATH Standards of Care, which is used internationally for transgender care.)	Member
2010 - 2018	ICD 11 Advisory Committee, World Professional Association for Transgender Health	Member
2012 - 2014	Psychiatry and Diagnosis Track Co-chair, Scientific Committee, 2014 WPATH Biennial Symposium, Bangkok	Member
2014 - 2016	Scientific Committee, 2016 WPATH Biennial Symposium, Member Amsterdam	
2014 - 2018	Board of Directors (elected to 4 year term), World Professional Association for Transgender Health	Member
2014 - 2018	Public Policy Committee, World Professional Association Chair for Transgender Health	
2014 - 2018	WPATH Global Education Initiative: Training providers and specialty certification in transgender health	Trainer and Steering Committee Member
2014 - 2016	American Psychiatric Association Workgroup on Gender Dysphoria	Member
present	American Psychiatric Association Workgroup on Gender Dysphoria	Chair
2016	USPATH: Inaugural WPATH U.S. Conference, Los Angeles, 2017	Conference Chair

SERVICE TO PROFESSIONAL PUBLICATIONS

2011 - present Journal of Sexual Medicine, reviewer
 2014 - present International Journal of Transgenderism, reviewer
 2016 - present LGBT Health, reviewer

INVITED PRESENTATIONS - INTERNATIONAL

2009	World Professional Association for Transgender Health, Oslo, Norway	Plenary Session Speaker
2009	World Professional Association for Transgender Health, Oslo, Norway	Symposium Speaker
2009	Karolinska Institutet, Stockholm Sweden	Invited Lecturer
2012	Cuban National Center for Sex Education (CENESEX), Havana, Cuba	Invited Speaker
2013	Swedish Gender Clinics Annual Meeting, Stockholm, Sweden	Keynote Speaker
2013	Conference on International Issues in Transgender care, Expert Consultant United Nations Development Programme - The Lancet, Beijing, China	
2014	World Professional Association for Transgender Health, Track Chair Bangkok, Thailand	

- 2014 World Professional Association for Transgender Health, Invited Speaker Bangkok, Thailand
- 2014 World Professional Association for Transgender Health, Invited Speaker Bangkok, Thailand
- 2015 European Professional Association for Transgender Invited Speaker Health, Ghent, Belgium
- 2015 European Professional Association for Transgender Symposium Chair Health, Ghent, Belgium
- 2015 Israeli Center for Human Sexuality and Gender Identity, Invited Speaker Tel Aviv
- 2016 World Professional Association for Transgender Health, Symposium Chair Amsterdam
- 2016 World Professional Association for Transgender Health, Invited Speaker Amsterdam
- 2016 World Professional Association for Transgender Health, Invited Speaker Amsterdam 2017
- Brazil Professional Association for Transgender Health, Sao Paulo
- 2017 Vietnam- United Nations Development Programme Asia Transgender Health Conference, Hanoi
- 2018 United Nations Development Programme Asia Conference on Transgender Health and Human Rights, Bangkok
- 2018 World Professional Association for Transgender Health, Invited Speaker Buenos Aires
- 2021 Manitoba Psychiatric Association, Keynote Speaker
- 2022 World Professional Association for Public Health, invited speaker, Montreal

INVITED PRESENTATIONS - NATIONAL

- 1990 Being Alive Medical Update, Century Cable Television Televised Lecturer
- 1992 Institute on Hospital and Community Psychiatry, Toronto Symposium Speaker
- 1992 Academy of Psychosomatic Medicine Annual Meeting, San Diego Symposium Speaker
- 1994 American Psychiatric Association 150th Annual Meeting, Workshop Chair Philadelphia
- 1994 American Psychiatric Association 150th Annual Meeting, Workshop Speaker Philadelphia
- 1994 American Psychiatric Association 150th Annual Meeting, Paper Session Co-chair Philadelphia
- 1995 Spring Meeting of the Association of Gay and Lesbian Psychiatrists, Miami Beach Symposium Chair
- 1996 American Psychiatric Association 152nd Annual Meeting, Workshop Speaker New York
- 1997 American Psychiatric Association Annual Meeting, San Diego Workshop Speaker
- 1997 Gay and Lesbian Medical Association Annual Invited Speaker Symposium
- 1998 American Psychiatric Association Annual Meeting, Toronto Workshop Chair
- 1998 American Psychiatric Association Annual Meeting, Workshop Chair

	Toronto	
1998	American Psychiatric Association Annual Meeting, Toronto	Media Session Chair
1998	American Psychiatric Association Annual Meeting, Toronto	Media Session Chair
1999	American Psychiatric Association Annual Meeting, Washington, D.C.	Symposium Chair
1999	American Psychiatric Association Annual Meeting, Washington, D.C.	Symposium Presenter
1999	American Psychiatric Association Annual Meeting, D.C.	Workshop Chair Washington,
2000	American Psychiatric Association Annual Meeting,	Workshop Chair Chicago
2000	National Youth Leadership Forum On Medicine, University of California, Berkeley	Invited Speaker
2001	American Psychiatric Association Annual Meeting, New	Workshop Chair Orleans
2001	American Psychiatric Association Annual Meeting, New Orleans	Media Program Chair
2001	Association of Gay and Lesbian Psychiatrists	Chair Symposium, New Orleans
2001	Harry Benjamin International Gender Dysphoria Association Biennial Meeting, Galveston, Texas	Invited Speaker
2002	American Psychiatric Association Annual Meeting, Philadelphia	Media Program Chair
2002	American Psychiatric Association Annual Meeting, Philadelphia	Workshop Chair
2002	American Psychiatric Association Annual Meeting, Philadelphia	Workshop Chair
2003	Association of Gay and Lesbian Psychiatrists CME	Chair Conference
2003	American Psychiatric Association Annual Meeting, San Francisco	Symposium Chair
2003	American Psychiatric Association Annual Meeting, San Francisco	Symposium Co- Chair
2003	American Psychiatric Association Annual Meeting, San	Workshop Chair Francisco
2003	American Public Health Association Annual Meeting, San	Invited Speaker Francisco
2004	Mission Mental Health Clinic Clinical Conference	Invited Speaker
2004	Association of Gay and Lesbian Psychiatrists Conference, New York	Co-Chair
2004	Mental Health Care Provider Education Program: Los Angeles. Sponsored by the American Psychiatric Association Office of HIV Psychiatry	Invited Speaker
2005	American Psychiatric Association Annual Meeting, Atlanta	Workshop Speaker
2005	Association of Gay and Lesbian Psychiatrists Saturday	Invited Speaker Symposium
2008	Society for the Study of Psychiatry and Culture, San	Invited Speaker Francisco
2009	American Psychiatric Association Annual Meeting, San Francisco	Symposium Speaker
2011	National Transgender Health Summit, San Francisco	Invited Speaker

2011	National Transgender Health Summit, San Francisco	Invited Speaker
2011	American Psychiatric Association Annual Meeting, Honolulu, HI	Symposium Chair
2011	American Psychiatric Association Annual Meeting, Honolulu, HI	Symposium Speaker
2011	World Professional Association for Transgender Health Conference, Atlanta, GA	Invited Speaker Biennial
2011	World Professional Association for Transgender Health Conference, Atlanta, GA	Invited Speaker Biennial

2011	World Professional Association for Transgender Health Biennial Conference, Atlanta, GA	
2011	Institute on Psychiatric Services, San Francisco	Invited Speaker
2012	Gay and Lesbian Medical Association Annual Meeting	Invited Speaker
2013	National Transgender Health Summit, Oakland, CA	Invited Speaker
2013	National Transgender Health Summit, Oakland, CA	Invited Speaker
2013	National Transgender Health Summit, Oakland, CA	Invited Speaker
2013	American Psychiatric Association Annual Meeting, San Francisco	Invited Speaker
2013	Gay and Lesbian Medical Association, Denver, CO	Invited Speaker
2014	American Psychiatric Association Annual Meeting, New York	Invited Speaker
2014	Institute on Psychiatric Services, San Francisco	Moderator
2014	Institute on Psychiatric Services, San Francisco	Invited Speaker
2014	Institute on Psychiatric Services, San Francisco	Invited Speaker
2015	National Transgender Health Summit, Oakland, CA	Invited Speaker
2015	National Transgender Health Summit, Oakland, CA	Invited Speaker
2015	American Psychiatric Association Annual Meeting, Toronto	Workshop Speaker
2015	American Psychiatric Association Annual Meeting, Toronto	Course Faculty
2016	American Psychiatric Association Annual Meeting	Course Faculty
2016	World Professional Association for Transgender Health Global Education Initiative, Atlanta	Course Faculty
2016	World Professional Association for Transgender Health Global Education Initiative, Springfield, MO	Course Faculty
2016	World Professional Association for Transgender Health Global Education Initiative, Fort Lauderdale, FL	Course Faculty
2017	World Professional Association for Transgender Health, GEI, Los Angeles	Course Faculty
	World Professional Association for Transgender Health Surgeon's Training, Irvine, CA	Course Faculty
2017	American Urological Association Annual Meeting, San Francisco CA	Invited Speaker

- 2018 World Professional Association for Transgender Health GEI, Portland OR, Course Faculty
- 2018 World Professional Association for Transgender Health GEI, Palm Springs, Course Faculty
- 2019 American Society for Adolescent Psychiatry Annual Meeting, San Francisco, Speaker
- 2019 American Psychiatric Association Annual Meeting, San Francisco, Session Chair
- 2020 Psychiatric Congress, Invited Speaker
- 2022 World Professional Association for Transgender Health, Montreal, invited speaker
- 2023 National Transgender Health Summit, San Francisco, invited speaker
- 2023 American Psychiatric Association Annual Meeting, San Francisco, invited speaker
- 2023` US Professional Association for Transgender Health, speaker

INVITED PRESENTATIONS - REGIONAL AND OTHER INVITED PRESENTATIONS

- 1990 Advanced Group Therapy Seminar, UCLA Invited Lecturer
Neuropsychiatric Institute
- 1991 Joint Project of the Southern California AIDS Interfaith Council and UCLA School of Medicine Symposium Speaker
- 1991 Joint Project of the Southern California AIDS Interfaith Council and UCLA School of Medicine Workshop Panelist
- 1992 Advanced Group Therapy Seminar, UCLA Invited Lecturer
Neuropsychiatric Institute
- 1993 UCSF School of Nursing Invited Lecturer
- 1995 UCSF/SFGH Department of Medicine Clinical Care Invited Speaker Conference
- 1996 UCSF School of Nursing Invited Speaker
- 1996 Psychopharmacology for the Primary Care AIDS/Clinician, Invited Lecturer series of four lectures, UCSF Department of Medicine
- 1996 UCSF AIDS Health Project Psychotherapy Internship Training Program
- 1996 UCSF/SFGH Department of Medicine AIDS Quarterly Invited Speaker Update
- 1996 San Francisco General Hospital, Division of Addiction Medicine Invited Speaker

1996	UCSF Langley Porter Psychiatric Hospital and Clinics	Invited Speaker	Grand Rounds
1997	UCSF School of Nursing	Invited Speaker	
1997	UCSF Department of Medicine AIDS Program	Invited Speaker	
1997	Northern California Psychiatric Society Annual Meeting,	Workshop Speaker	Monterey
1997	San Francisco General Hospital Department of Psychiatry	Invited Speaker	Grand Rounds
1997	San Francisco General Hospital Department of Psychiatry	Invited Speaker	Grand Rounds
1997	Northern California Psychiatric Society LGBT Committee	Chair	Fall Symposium
1997	Progress Foundation, San Francisco	Invited Speaker	
1998	San Francisco General Hospital Department of Psychiatry	Invited Speaker	Grand Rounds
1999	Northern California Psychiatric Society Annual Meeting,	Invited Speaker	Santa Rosa
1999	Northern California Psychiatric Society Annual Meeting,	Invited Speaker	Santa Rosa
1999	University of California, Davis, Department of Psychiatry	Invited Speaker	Grand Rounds
1999	California Pacific Medical Center Department of	Invited Speaker	Psychiatry Grand Rounds
1999	San Francisco General Hospital Department of Psychiatry	Discussant	Departmental Case Conference
2000	Langley Porter Psychiatric Hospital and Clinics	Invited Speaker	Consultation Liaison Seminar
2000	San Francisco General Hospital, Psychopharmacology	Invited Speaker	Seminar
2000	UCSF Transgender Health Conference, Laurel Heights	Invited Speaker	Conference Center
2000	Psychiatry Course for UCSF Second Year Medical	Invited Lecturer	Students
2000	Community Consortium Treatment Update Symposium,	Invited Speaker	California Pacific Medical Center, Davies Campus
2000	San Francisco General Hospital Department of Psychiatry	Invited Speaker	Grand Rounds
2001	Psychiatry Course for UCSF Second Year Medical	Invited Lecturer	Students
2003	Tom Waddell Health Center Inservice	Invited Speaker	
2003	San Francisco Veterans Affairs Outpatient Clinic	Invited Speaker	
2004	San Francisco General Hospital Psychiatric Emergency	Invited Speaker	Service Clinical Conference
2004	South of Market Mental Health Clinic, San Francisco	Invited Speaker	
2005	Northern Psychiatric Psychiatric Society Annual Meeting	Invited Speaker	
2005	Equality and Parity: A Statewide Action for Transgender	Invited Speaker	HIV Prevention and Care, San Francisco

2005	San Francisco General Hospital Department of Psychiatry	Invited Speaker	Grand Rounds.
2006	SFGH/UCSF Department of Psychiatry	Invited Speaker	Grand Rounds
2007	UCSF Department of Medicine, HIV/AIDS	Invited Speaker	Positive Health Program
2007	California Pacific Medical Center	Invited Speaker	LGBT Health Symposium, San Francisco LGBT Community Center
2007	UCSF CME Conference, Medical Management of	Invited Speaker	HIV/AIDS, Fairmont Hotel, San Francisco
2008	UCSF Department of Medicine, Positive Health Program,	Invited Speaker	HIV/AIDS Grand Rounds
2008	San Francisco General Hospital Psychiatry	Invited Speaker	Grand Rounds
2008	UCSF CME Conference, Medical Management of	Invited Speaker	HIV/AIDS, Fairmont Hotel, San Francisco
2010	Northern California Psychiatric Society Annual Meeting,	Invited Speaker	Monterey, CA
2011	Transgender Mental Health Care Across the Life Span,	Invited Speaker	Stanford University
2011	San Francisco General Hospital Department of Psychiatry	Invited Speaker	Grand Rounds
2012	UCSF AIDS Health Project	Invited Speaker	2012 San Francisco Veterans Affairs Medical Center.
2013	Association of Family and Conciliation Courts Conference,	Invited Speaker	Los Angeles, CA
2014	UCSF Transgender Health elective	Invited Speaker	
2014	UCSF Department of Psychiatry	Invited Speaker	Grand Rounds
2014	California Pacific Medical Center Department of	Invited Speaker	Psychiatry Grand Rounds
2014	UCLA Semel Institute Department of Psychiatry	Invited Speaker	Grand Rounds
2015	UCSF Transgender Health elective	Invited Speaker	
2015	Fenway Health Center Boston, MA (webinar)	Invited Speaker	
2015	Transgender Health Symposium, Palm Springs	Invited Speaker	
2015	Transgender Health Symposium, Palm Springs	Co-Chair	
2015	Santa Clara Valley Medical Center	Invited Speaker	Grand Rounds
2016	UCSF School of Medicine Transgender Health elective	Invited Speaker	
2016	Langley Porter Psychiatric Institute APC Case Conference	Invited Speaker	(2 session series)
2016	Zuckerberg San Francisco General Department of	Invited Speaker	Psychiatry Grand Rounds
2016	UCSF Mini-Medical School Lectures to the Public	Invited Speaker	

2021 Los Angeles County Department of Mental Health, Invited Speaker

2023 Alameda County Department of Behavioral Health, Invited Speaker

**CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT
ACTIVITIES**

2005 Northern California Psychiatric Society
2005 Northern California Psychiatric Society Annual Meeting, Napa
2005 Association of Gay and Lesbian Psychiatrist Annual Conference
2006 Annual Meeting, American Psychiatric Association, Atlanta
2006 Annual Meeting, American Psychiatric Association, Toronto
2006 Institute on Psychiatric Services, New York
2007 Association of Gay and Lesbian Psychiatrists Annual Conference
2007 American Psychiatric Association Annual Meeting, San Diego
2007 The Medical Management of HIV/AIDS, a UCSF CME Conference
2008 Society for the Study of Psychiatry and Culture, San Francisco
2009 American Psychiatric Association, San Francisco
2009 World Professional Association for Transgender Health, Oslo, Norway
2010 Annual Meeting of the Northern California Psychiatric Society, Monterey, CA
2011 Transgender Mental Health Care Across the Life Span, Stanford University
2011 National Transgender Health Summit, San Francisco
2011 American Psychiatric Association Annual Meeting, Honolulu, HI
2011 World Professional Association for Transgender Health Biennial Conference, Atlanta, GA
2011 Institute on Psychiatric Services, San Francisco
2012 Gay and Lesbian Medical Association Annual Meeting, San Francisco
2013 National Transgender Health Summit, Oakland, CA
2013 American Psychiatric Association Annual Meeting, San Francisco
2013 Gay and Lesbian Medical Association, Denver, CO
2014 American Psychiatric Association Annual Meeting, New York
2014 Institute on Psychiatric Services, San Francisco
2015 European Professional Association for Transgender Health, Ghent, Belgium
2015 National Transgender Health Summit, Oakland
2015 American Psychiatric Association Annual Meeting, Toronto

2016 American Psychiatric Association Annual Meeting, Atlanta
2016 World Professional Association for Transgender Health, Amsterdam

GOVERNMENT AND OTHER PROFESSIONAL SERVICE

1998 - 2002 City and County of San Francisco Human Rights Member Commission LGBT
Advisory Committee

I am the chair of the American Psychiatric Association Workgroup on Gender Dysphoria, which developed a CME course for the 2015 and 2016 APA Annual Meetings, and has a larger educational mission to train American psychiatrists to better care for transgender patients. I have been leading education efforts in transgender health at APA meetings since 1998. On the APA Workgroup on Gender Dysphoria, I am a co-author of a paper of transgender issues that has been approved by the American Psychiatric Association as a resource document and is in press for the American Journal of Psychiatry. I am also the sole author of the chapter on transgender care in the American Psychiatric Press's Clinical Manual of Cultural Psychiatry, Second Edition.

I have been active internationally in transgender health through my work as a member of the Board of Directors of the World Professional Association for Transgender Health. I am an author of the WPATH Standards of Care, Version 7, and am Chapter Lead for the Mental Health Chapter of SOC 8. I chaired the WPATH Public Policy Committee and was a member of the Global Education Initiative, which developed a specialty certification program in transgender health. I helped plan the 2016 WPATH Amsterdam conference, and was on the scientific committee for the last four biennial international conferences. I was on the founding committee of USPATH, the national affiliate of WPATH, and I chaired the inaugural USPATH conference, in Los Angeles in 2017. As a member of the steering committee of the WPATH Global Educational Initiative, I helped train over 2000 health providers in transgender health, and helped develop a board certification program and examination in transgender health.

UNIVERSITY SERVICE UC SYSTEM AND MULTI-CAMPUS SERVICE

1991 – 2003 HIV/AIDS Task Force Member

1992 - 1993 HIV Research Group Member

1992 - 1997 Space Committee Member

1992 - 2003 Gay, Lesbian and Bisexual Issues Task Force Member

1994 - 1997 SFGH Residency Training Committee Member

1996 - 1997 Domestic Partners Benefits Subcommittee. Chair

1996 - 2000 Chancellor's Advisory Committee on Gay, Lesbian, Member Bisexual and Transgender Issues.

1996 - 2003 HIV/AIDS Task Force Co-Chair

1996 - 2003 Cultural Competence and Diversity Program Member

2009 - present Medical Advisory Board, UCSF Center of Excellence for Member Transgender Health

2010 - 2013 Steering Committee, Child Adolescent Gender Center Member

2011 – 2017 Mental Health Track, National Transgender Health Summit Chair

DEPARTMENTAL SERVICE

1991 - 2003 San Francisco General Hospital, Department of Psychiatry, Member HIV/AIDS Task Force

1992 - 1993 San Francisco General Hospital, Department of Psychiatry, Member HIV Research Group

1992 - 1997 San Francisco General Hospital, Department of Psychiatry, Member Space Committee

1992 - 2003 San Francisco General Hospital, Department of Psychiatry, Member GLBT Issues Task Force

1994 - 1997 San Francisco General Hospital, Department of Psychiatry, Member Residency Training Committee

1996 - 2003 San Francisco General Hospital, Department of Psychiatry, Member Cultural Competence and Diversity Program

1996 - 2003 San Francisco General Hospital, Department of Psychiatry, Co-Chair HIV/AIDS Task Force

2012 - 2020 San Francisco Department of Public Health Gender Member Competence Trainings Committee

2013 - 2020 San Francisco Department of Public Health Transgender Member Health Implementation Task Force

2014 - 2020 San Francisco General Hospital, Department of Psychiatry, Member Transgender Surgery Planning Workgroup

PEER REVIEWED PUBLICATIONS

1. Berliner JA, Frank HJL, **Karasic D**, Capdeville M. Lipoprotein-induced insulin resistance in aortic endothelium. *Diabetes*. 1984; 33:1039-44.
2. Bradberry CW, **Karasic DH**, Deutch AY, Roth RH. Regionally-specific alterations in mesotelencephalic dopamine synthesis in diabetic rats: association with precursor tyrosine. *Journal of Neural Transmission. General Section*, 1989; 78:221-9.
3. Targ EF, **Karasic DH**, Bystritsky A, Diefenbach PN, Anderson DA, Fawzy FI. Structured group therapy and fluoxetine to treat depression in HIV-positive persons. *Psychosomatics*. 1994; 35:132-7.
4. Karasic DH. Homophobia and self-destructive behaviors. *The Northern California Psychiatric Physician*. 1996; 37 Nov.-Dec. Reprinted by the Washington State Psychiatric Society and the Southern California Psychiatric Society newsletters.
5. Karasic D. Anxiety and anxiety disorders. *Focus*. 1996 Nov; 11(12):5-6. PMID: 12206111
6. Polansky JS, **Karasic DH**, Speier PL, Hastik KL, Haller E. Homophobia: Therapeutic and training considerations for psychiatry. *Journal of the Gay and Lesbian Medical Association*. 1997 1(1) 41-47.
7. Karasic DH. Progress in health care for transgendered people. Editorial. *Journal of the Gay and Lesbian Medical Association*, 4(4) 2000 157-8.
8. Perry S, **Karasic D**. Depression, adherence to HAART, and survival. *Focus: A Guide to AIDS Research and Counseling*. 2002 17(9) 5-6.
9. Fraser L, **Karasic DH**, Meyer WJ, Wylie, K. Recommendations for Revision of the DSM Diagnosis of Gender Identity Disorder in Adults. *International Journal of Transgenderism*. Volume 12, Issue 2. 2010, Pages 80-85.
10. Coleman, E., Bockting, W., Botzer, M., Cohen-Kettenis, P., DeCuypere, G., Feldman, J., Fraser, L., Green, J., Knudson, G., Meyer, W., Monstrey, S., **Karasic D** and 22 others. (2011). Standards of Care for the Health of Transsexual, Transgender, and Gender Nonconforming People, 7th Version. *International Journal of Transgenderism*, 13:165-232, 2011
11. Tsai AC, **Karasic DH**, et al. Directly Observed Antidepressant Medication Treatment and HIV Outcomes Among Homeless and Marginally Housed HIV-Positive Adults: A Randomized Controlled Trial. *American Journal of Public Health*. February 2013, Vol. 103, No. 2, pp. 308-315.
12. Tsai AC, Mimmiaga MJ, Dilley JW, Hammer GP, **Karasic DH**, Charlebois ED, Sorenson JL, Safren SA, Bangsberg DR. Does Effective Depression Treatment Alone Reduce Secondary HIV Transmission Risk? Equivocal Findings from a Randomized Controlled Trial. *AIDS and Behavior*, October 2013, Volume 17, Issue 8, pp 2765-2772.
13. **Karasic DH**. Protecting Transgender Rights Promotes Transgender Health. *LGBT Health*. 2016 Aug; 3(4):245-7. PMID: 27458863
14. Winter S, Diamond M, Green J, **Karasic D**, Reed T, Whittle S, Wylie K. Transgender people: health at the margins of society. *Lancet*. 2016 Jul 23;388(10042):390-400. doi: 10.1016/S0140-6736(16)00683-8. Review./> PMID: 27323925

15. Grelotti DJ, Hammer GP, Dilley JW, **Karasic DH**, Sorensen JL, Bangsberg DR, Tsai AC. Does substance use compromise depression treatment in persons with HIV? Findings from a randomized controlled trial. *AIDS Care*. 2016 Sep 2:1-7. [Epub ahead of print]/> PMID: 27590273
16. Strang JF, Meagher H, Kenworthy L, de Vries AL, Menvielle E, Leibowitz S, Janssen A, Cohen-Kettenis P, Shumer DE, Edwards-Leeper L, Pleak RR, Spack N, **Karasic DH**, Schreier H, Balleur A, Tishelman A, Ehrensaft D, Rodnan L, Kushner ES, Mandel F, Caretto A, Lewis HC, Anthony LG. Initial Clinical Guidelines for Co-Occurring Autism Spectrum Disorder and Gender Dysphoria or Incongruence in Adolescents. *J Clin Child Adolesc Psychol*. 2016 Oct 24:1-11. [Epub ahead of print]/> PMID: 27775428
17. Milrod C, **Karasic DH**. Age Is Just a Number: WPATH-Affiliated Surgeons' Experiences and Attitudes Toward Vaginoplasty in Transgender Females Under 18 Years of Age in the United States. *J Sex Med* 2017;14:624–634.
18. William Byne, Dan H. Karasic, Eli Coleman, A. Evan Eyler, Jeremy D. Kidd, Heino F.L. Meyer-Bahlburg, Richard R. Pleak, and Jack Pula. Gender Dysphoria in Adults: An Overview and Primer for Psychiatrists. *Transgender Health*. Dec 2018. 57-A3. <http://doi.org/10.1089/trgh.2017.0053>
19. Identity recognition statement of the world professional association for transgender health (WPATH). *International Journal of Transgenderism*. 2018 Jul 3; 19(3):1-2. Knudson KG, Green GJ, Tangpricha TV, Ettner ER, Bouman BW, Adrian AT, Allen AL, De Cuypere DG, Fraser FL, Hansen HT, **Karasic KD**, Kreukels KB, Rachlin RK, Schechter SL, Winter WS, Committee and Board of Direct
20. **Karasic, DH** & Fraser, L. Multidisciplinary Care and the Standards of Care for Transgender and Gender Non-conforming Individuals. Schechter, L & Safa, B. (Eds.) *Gender Confirmation Surgery, Clinics in Plastic Surgery Special Issue*, Vol 45, Issue 3, pp 295-299. 2018 Elsevier, Philadelphia. <https://doi.org/10.1016/j.cps.2018.03.016>
21. Milrod C, Monto M, **Karasic DH**. Recommending or Rejecting "the Dimple": WPATH-Affiliated Medical Professionals' Experiences and Attitudes Toward Gender-Confirming Vulvoplasty in Transgender Women. *J Sex Med*. 2019 Apr;16(4):586-595. doi: 10.1016/j.jsxm.2019.01.316. Epub 2019 Mar 2.
22. ICD-11 and gender incongruence of childhood: a rethink is needed. *Lancet Child Adolesc Health*. 2019 10; 3(10):671-673. Winter S, **Ehrensaft D**, Telfer M, T'Sjoen G, Koh J, Pickstone-Taylor S, Kruger A, Griffin L, Foigel M, De Cuypere G, **Karasic D**. PMID: 31439494.
23. Gender Dysphoria in Adults: An Overview and Primer for Psychiatrists. *Focus (Am Psychiatr Publ)*. 2020 Jul; 18(3):336-350. Byne W, **Karasic DH**, Coleman E, Eyler AE, Kidd JD, Meyer-Bahlburg HFL, Pleak RR, Pula J. PMID: 33343244; PMCID: [PMC7587914](https://pubmed.ncbi.nlm.nih.gov/PMC7587914/).
24. WPATH Standards of Care for the Health of Transgender and Gender Diverse People, Version 8. E. Coleman, A. E. Radix, W. P. Bouman, G. R. Brown, A. L. C. de Vries, M. B. Deutsch, R. Ettner, L. Fraser, M. Goodman, J. Green, A. B. Hancock, T. W. Johnson, **D. H. Karasic**... J. Arcelus (2022) Standards of Care for the Health of Transgender and Gender Diverse People, Version 8, International Journal of Transgender Health, 23:sup1, S1-S259, DOI: 10.1080/26895269.2022.2100644

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1. **Karasic DH**, Dilley JW. Anxiety and depression: Mood and HIV disease. In: The UCSF AIDS Health Project Guide to Counseling: Perspectives on Psychotherapy, Prevention, and Therapeutic Practice. Dilley JW and Marks R, eds. Jossey-Bass. San Francisco, 1998, pp.227-248.
2. **Karasic DH**, Dilley JW. Human immunodeficiency-associated psychiatric disorders. In: The AIDS Knowledge Base, Third Edition. Cohen PT, Sande MA, Volberding PA, eds. Lippincott-Williams & Wilkens, Philadelphia, 1999, pp. 577-584.
3. **Karasic DH** and Drescher J. eds. Sexual and Gender Diagnoses of the Diagnostic and Statistical Manual (DSM): A Reevaluation. 2005. Haworth Press, Binghamton, NY. (Book Co-Editor)
4. **Karasic DH**. Transgender and Gender Nonconforming Patients. In: Clinical Manual of Cultural Psychiatry, Second Edition. Lim RF ed. pp 397-410. American Psychiatric Publishing, Arlington VA. 2015.
5. **Karasic DH**. Mental Health Care of the Transgender Patient. In: Comprehensive Care of the Transgender Patient, Ferrando CA ed. pp. 8-11. Elsevier, 2019.
6. **Karasic DH**. The Mental Health Assessment for Surgery. In: Gender Confirmation Surgery – Principles and Techniques for an Emerging Field. Schechter L ed. Springer Nature, in press 2019.

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1. **Karasic DH**, Dilley JW. HIV-associated psychiatric disorders: Treatment issues. In: Cohen P, Sande MA, Volberding P, eds., The AIDS Knowledge Base. Waltham, MA: The Medical Publishing Group/Massachusetts Medical Society. 1994. pp. 5.31-1-5.
2. **Karasic DH**, Dilley JW. HIV-associated psychiatric disorders: Clinical syndromes and diagnosis. In: Cohen P, Sande MA, Volberding P, eds., The AIDS Knowledge Base, Second Edition. Waltham, MA: The Medical Publishing Group/Massachusetts Medical Society. 1994 pp. 5.30-1-5.
3. **Karasic DH**. A primer on transgender care. In: Gender and sexuality. The Carlat Report Psychiatry. April 2012. Vol 10, Issue 4.
4. **Karasic D and Ehrensaft D**. We must put an end to gender conversion therapy for kids. Wired. 7/6/15.

EXPERT WITNESS AND CONSULTATION ON TRANSGENDER CARE AND RIGHTS

2008 Consultant, California Department of State Hospitals

2012 Dugan v. Lake, Logan UT

2012 XY v. Ontario <http://www.canlii.org/en/on/onhrt/doc/2012/2012hrto726/2012hrto726.html>

2014 Cabading v California Baptist University

2014 CF v. Alberta <http://www.canlii.org/en/ab/abqb/doc/2014/2014abqb237/2014abqb237.html>

2017 United Nations Development Programme consultant, transgender health care and legal rights in the Republic of Vietnam; Hanoi.

2017- 2018 Forsberg v Saskatchewan; Saskatchewan Human Rights v Saskatchewan
<https://canliiconnects.org/en/summaries/54130>
<https://canliiconnects.org/en/cases/2018skqb159>

2018 United Nations Development Programme consultant, transgender legal rights in Southeast Asia;
Bangkok.

2018 Consultant, California Department of State Hospitals

2019, 2021 Consultant/Expert, Disability Rights Washington

2019, 2021 Consultant/Expert, ACLU Washington

2021 Consultant, California Department of Corrections and Rehabilitation

2021 Expert, Kadel v. Folwell, 1:19-cv-00272 (M.D.N.C.).

2021 Expert, Drew Glass v. City of Forest Park - Case No. 1:20-cv-914 (Southern District Ohio)

2021-2022 Expert, Brandt et al v. Rutledge et al. 4:21-cv-00450 (E.D. Ark.)

2021-2022 Expert, Fain v. Crouch, 3:20-cv-00740 (S.D.W. Va.)

2022 Expert, C.P. v. Blue Cross Blue Shield of Illinois, No. 3:20-cv-06145-RJB (W.D. Wash.)

2022-3 Expert, Dekker, et al. v. Weida, et al., No. 4:22-cv-00325-RH-MAF

2019-2023 Expert, Disability Rights Washington v Washington State Department of Corrections

2023 Expert, K.C. et al. v Individual Members of the Indiana Licensing Board, et al- No. 1:23-CV-595

2023 Expert, Doe, et al v Ladapo -No. 4:23-cv-00114-RH-MAF

2023 Expert, Doe et al v Thornbury -No. 3:23-cv-00230-DJH

2023 Expert Voe v Mansfield

Exhibit B

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Coleman, E., Bockting, W., Botzer, M., et al. (2012). Standards of Care for the Health of Transsexual, Transgender, and Gender-Nonconforming People (7th Version). The World Professional Association for Transgender Health. Available at https://www.wpath.org/media/cms/Documents/SOC%20v7/SOC%20V7_English2012.pdf?_t=1613669341.

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follow-up study. *The Journal of Sexual Medicine*, 8(8), 2276-2283, available at <https://doi.org/10.1111/j.1743-6109.2010.01943>.

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Gender-Affirming Hormone Therapy with Depression, Thoughts of Suicide, and Attempted Suicide Among Transgender and Nonbinary Youth. *The Journal of Adolescent Health*, 70(4), 643–649. <https://doi.org/10.1016/j.jadohealth.2021.10.036>.

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Herman, J. L., Flores, A. R., Brown, T. N. T., Wilson, B. D. M., & Conron, K. J. (2017). Age of Individuals Who Identify as Transgender in the United States. The Williams Institute, available at <http://williamsinstitute.law.ucla.edu/wp-content/uploads/Age-Trans-Individuals-Jan-2017.pdf>.

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van der Miesen, A. I. R., Steensma, T. D., de Vries, A. L. C., Bos, H., & Popma, A. (2020). Psychological Functioning in Transgender Adolescents Before and After Gender-Affirmative Care Compared With Cisgender General Population Peers. *The Journal of adolescent health*, 66(6), 699–704, available at <https://doi.org/10.1016/j.jadohealth.2019.12.018>.

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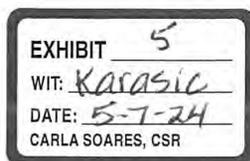
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CHAPTER 6 Adolescents

Historical context and changes since previous Standards of Care

Specialized health care for transgender adolescents began in the 1980s when a few specialized gender clinics for youth were developed around the world that served relatively small numbers of children and adolescents. In more recent years, there has been a sharp increase in the number of adolescents requesting gender care (Arnoldussen et al., 2019; Kaltiala, Bergman et al., 2020). Since then, new clinics have been founded, but clinical services in many places have not kept pace with the increasing number of youth seeking care. Hence, there are often long waitlists for services, and barriers to care exist for many transgender youth around the world (Tollit et al., 2018).

Until recently, there was limited information regarding the prevalence of gender diversity among adolescents. Studies from high school samples indicate much higher rates than earlier thought, with reports of up to 1.2% of participants identifying as transgender (Clark et al., 2014) and up to 2.7% or more (e.g., 7–9%) experiencing some level of self-reported gender diversity (Eisenberg et al., 2017; Kidd et al., 2021; Wang et al., 2020). These studies suggest gender diversity in youth should no longer be viewed as rare. Additionally, a pattern of uneven ratios by assigned sex has been reported in gender clinics, with adolescents assigned female at birth (AFAB) initiating care 2.5–7.1 times more frequently as compared to adolescents who are assigned male at birth (AMAB) (Aitken et al., 2015; Arnoldussen et al., 2019; Bauer et al., 2021; de Graaf, Carmichael et al., 2018; Kaltiala et al., 2015; Kaltiala, Bergman et al., 2020).

A specific World Professional Association for Transgender Health's (WPATH) Standards of Care section dedicated to the needs of children and adolescents was first included in the 1998 WPATH Standards of Care, 5th version (Levine et al., 1998). Youth aged 16 or older were deemed potentially eligible for gender-affirming medical care, but only in select cases. The subsequent 6th (Meyer et al., 2005) and 7th (Coleman et al., 2012) versions divided medical-affirming treatment for adolescents into three categories and

presented eligibility criteria regarding age/puberty stage—namely fully reversible puberty delaying blockers as soon as puberty had started; partially reversible hormone therapy (testosterone, estrogen) for adolescents at the age of majority, which was age 16 in certain European countries; and irreversible surgeries at age 18 or older, except for chest “masculinizing” mastectomy, which had an age minimum of 16 years. Additional eligibility criteria for gender-related medical care included a persistent, long (childhood) history of gender “non-conformity”/dysphoria, emerging or intensifying at the onset of puberty; absence or management of psychological, medical, or social problems that interfere with treatment; provision of support for commencing the intervention by the parents/caregivers; and provision of informed consent. A chapter dedicated to transgender and gender diverse (TGD) adolescents, distinct from the child chapter, has been created for this 8th edition of the Standards of Care given 1) the exponential growth in adolescent referral rates; 2) the increased number of studies specific to adolescent gender diversity-related care; and 3) the unique developmental and gender-affirming care issues of this age group.

Non-specific terms for gender-related care are avoided (e.g., gender-affirming model, gender exploratory model) as these terms do not represent unified practices, but instead heterogenous care practices that are defined differently in various settings.

Adolescence overview

Adolescence is a developmental period characterized by relatively rapid physical and psychological maturation, bridging childhood and adulthood (Sanders, 2013). Multiple developmental processes occur simultaneously, including pubertal-signaled changes. Cognitive, emotional, and social systems mature, and physical changes associated with puberty progress. These processes do not all begin and end at the same time for a given individual, nor do they occur at the same age for all persons. Therefore, the lower and upper borders of adolescence are imprecise and cannot be defined exclusively by age. For example, physical pubertal changes may

begin in late childhood and executive control neural systems continue to develop well into the mid-20s (Ferguson et al., 2021). There is a lack of uniformity in how countries and governments define the age of majority (i.e., legal decision-making status; Dick et al., 2014). While many specify the age of majority as 18 years of age, in some countries it is as young as 15 years (e.g., Indonesia and Myanmar), and in others as high as 21 years (e.g., the U.S. state of Mississippi and Singapore).

For clarity, this chapter applies to adolescents from the start of puberty until the legal age of majority (in most cases 18 years), however there are developmental elements of this chapter, including the importance of parental/caregiver involvement, that are often relevant for the care of transitional-aged young adults and should be considered appropriately.

Cognitive development in adolescence is often characterized by gains in abstract thinking, complex reasoning, and metacognition (i.e., a young person's ability to think about their own feelings in relation to how others perceive them; Sanders, 2013). The ability to reason hypothetical situations enables a young person to conceptualize implications regarding a particular decision. However, adolescence is also often associated with increased risk-taking behaviors. Along with these notable changes, adolescence is often characterized by individuation from parents and the development of increased personal autonomy. There is often a heightened focus on peer relationships, which can be both positive and detrimental (Gardner & Steinberg, 2005). Adolescents often experience a sense of urgency that stems from hypersensitivity to reward, and their sense of timing has been shown to be different from that of older individuals (Van Leijenhorst et al., 2010). Social-emotional development typically advances during adolescence, although there is a great variability among young people in terms of the level of maturity applied to inter- and intra-personal communication and insight (Grootens-Wiegers et al., 2017). For TGD adolescents making decisions about gender-affirming treatments—decisions that may have lifelong consequences—it is critical to understand how all these aspects of development may impact decision-making for a

given young person within their specific cultural context.

Gender identity development in adolescence

Our understanding of gender identity development in adolescence is continuing to evolve. When providing clinical care to gender diverse young people and their families, it is important to know what is and is not known about gender identity during development (Berenbaum, 2018). When considering treatments, families may have questions regarding the development of their adolescent's gender identity, and whether or not their adolescent's declared gender will remain the same over time. For some adolescents, a declared gender identity that differs from the assigned sex at birth comes as no surprise to their parents/caregivers as their history of gender diverse expression dates back to childhood (Leibowitz & de Vries, 2016). For others, the declaration does not happen until the emergence of pubertal changes or even well into adolescence (McCallion et al., 2021; Sorbara et al., 2020).

Historically, social learning and cognitive developmental research on gender development was conducted primarily with youth who were not gender diverse in identity or expression and was carried out under the assumption that sex correlated with a specific gender; therefore, little attention was given to gender identity development. In addition to biological factors influencing gender development, this research demonstrated psychological and social factors also play a role (Perry & Pauletti, 2011). While there has been less focus on gender identity development in TGD youth, there is ample reason to suppose, apart from biological factors, psychosocial factors are also involved (Steensma, Kreukels et al., 2013). For some youth, gender identity development appears fixed and is often expressed from a young age, while for others there may be a developmental process that contributes to gender identity development over time.

Neuroimaging studies, genetic studies, and other hormone studies in intersex individuals demonstrate a biological contribution to the development of gender identity for some

individuals whose gender identity does not match their assigned sex at birth (Steensma, Kreukels et al., 2013). As families often have questions about this very issue, it is important to note it is not possible to distinguish between those for whom gender identity may seem fixed from birth and those for whom gender identity development appears to be a developmental process. Since it is impossible to definitively delineate the contribution of various factors contributing to gender identity development for any given young person, a comprehensive clinical approach is important and necessary (see Statement 3). Future research would shed more light on gender identity development if conducted over long periods of time with diverse cohort groups. Conceptualization of gender identity by shifting from dichotomous (e.g., binary) categorization of male and female to a dimensional gender spectrum along a continuum (APA, 2013) would also be necessary.

Adolescence may be a critical period for the development of gender identity for gender diverse young people (Steensma, Kreukels et al., 2013). Dutch longitudinal clinical follow-up studies of adolescents with childhood gender dysphoria who received puberty suppression, gender-affirming hormones, or both, found that none of the youth in adulthood regretted the decisions they had taken in adolescence (Cohen-Kettenis & van Goozen, 1997; de Vries et al., 2014). These findings suggest adolescents who were comprehensively assessed and determined emotionally mature enough to make treatment decisions regarding gender-affirming medical care presented with stability of gender identity over the time period when the studies were conducted.

When extrapolating findings from the longer-term longitudinal Dutch cohort studies to present-day gender diverse adolescents seeking care, it is critical to consider the societal changes that have occurred over time in relation to TGD people. Given the increase in visibility of TGD identities, it is important to understand how increased awareness may impact gender development in different ways (Kornienko et al., 2016). One trend identified is that more young people are presenting to gender clinics with nonbinary identities (Twist & de Graaf, 2019). Another phenomenon occurring in clinical practice is the increased number of adolescents

seeking care who have not seemingly experienced, expressed (or experienced and expressed) gender diversity during their childhood years. One researcher attempted to study and describe a specific form of later-presenting gender diversity experience (Littman, 2018). However, the findings of the study must be considered within the context of significant methodological challenges, including 1) the study surveyed parents and not youth perspectives; and 2) recruitment included parents from community settings in which treatments for gender dysphoria are viewed with scepticism and are criticized. However, these findings have not been replicated. For a select subgroup of young people, susceptibility to social influence impacting gender may be an important differential to consider (Kornienko et al., 2016). However, caution must be taken to avoid assuming these phenomena occur prematurely in an individual adolescent while relying on information from datasets that may have been ascertained with potential sampling bias (Bauer et al., 2022; WPATH, 2018). It is important to consider the benefits that social connectedness may have for youth who are linked with supportive people (Tuzun et al., 2022)(see Statement 4).

Given the emerging nature of knowledge regarding adolescent gender identity development, an individualized approach to clinical care is considered both ethical and necessary. As is the case in all areas of medicine, each study has methodological limitations, and conclusions drawn from research cannot and should not be universally applied to all adolescents. This is also true when grappling with common parental questions regarding the stability versus instability of a particular young person's gender identity development. While future research will help advance scientific understanding of gender identity development, there may always be some gaps. Furthermore, given the ethics of self-determination in care, these gaps should not leave the TGD adolescent without important and necessary care.

Research evidence of gender-affirming medical treatment for transgender adolescents

A key challenge in adolescent transgender care is the quality of evidence evaluating the effectiveness of medically necessary gender-affirming medical

and surgical treatments (GAMSTs) (see medically necessary statement in the Global chapter, Statement 2.1), over time. Given the lifelong implications of medical treatment and the young age at which treatments may be started, adolescents, their parents, and care providers should be informed about the nature of the evidence base. It seems reasonable that decisions to move forward with medical and surgical treatments should be made carefully. Despite the slowly growing body of evidence supporting the effectiveness of early medical intervention, the number of studies is still low, and there are few outcome studies that follow youth into adulthood. Therefore, a systematic review regarding outcomes of treatment in adolescents is not possible. A short narrative review is provided instead.

At the time of this chapter's writing, there were several longer-term longitudinal cohort follow-up studies reporting positive results of early (i.e., adolescent) medical treatment; for a significant period of time, many of these studies were conducted through one Dutch clinic (e.g., Cohen-Kettenis & van Goozen, 1997; de Vries, Steensma et al., 2011; de Vries et al., 2014; Smith et al., 2001, 2005). The findings demonstrated the resolution of gender dysphoria is associated with improved psychological functioning and body image satisfaction. Most of these studies followed a pre-post methodological design and compared baseline psychological functioning with outcomes after the provision of medical gender-affirming treatments. Different studies evaluated individual aspects or combinations of treatment interventions and included 1) gender-affirming hormones and surgeries (Cohen-Kettenis & van Goozen, 1997; Smith et al., 2001, 2005); 2) puberty suppression (de Vries, Steensma et al., 2011); and 3) puberty suppression, affirming hormones, and surgeries (de Vries et al., 2014). The 2014 long-term follow-up study is the only study that followed youth from early adolescence (pretreatment, mean age of 13.6) through young adulthood (posttreatment, mean age of 20.7). This was the first study to show gender-affirming treatment enabled transgender adolescents to make age-appropriate developmental transitions while living as their affirmed gender with satisfactory objective and

subjective outcomes in adulthood (de Vries et al., 2014). While the study employed a small ($n = 55$), select, and socially supported sample, the results were convincing. Of note, the participants were part of the Dutch clinic known for employing a multidisciplinary approach, including provision of comprehensive, ongoing assessment and management of gender dysphoria, and support aimed at emotional well-being.

Several more recently published longitudinal studies followed and evaluated participants at different stages of their gender-affirming treatments. In these studies, some participants may not have started gender-affirming medical treatments, some had been treated with puberty suppression, while still others had started gender-affirming hormones or had even undergone gender-affirming surgery (GAS) (Achille et al., 2020; Allen et al., 2019; Becker-Hebly et al., 2021; Carmichael et al., 2021; Costa et al., 2015; Kuper et al., 2020, Tordoff et al., 2022). Given the heterogeneity of treatments and methods, this type of design makes interpreting outcomes more challenging. Nonetheless, when compared with baseline assessments, the data consistently demonstrate improved or stable psychological functioning, body image, and treatment satisfaction varying from three months to up to two years from the initiation of treatment.

Cross-sectional studies provide another design for evaluating the effects of gender-affirming treatments. One such study compared psychological functioning in transgender adolescents at baseline and while undergoing puberty suppression with that of cisgender high school peers at two different time points. At baseline, the transgender youth demonstrated lower psychological functioning compared with cisgender peers, whereas when undergoing puberty suppression, they demonstrated better functioning than their peers (van der Miesen et al., 2020). Grannis et al. (2021) demonstrated transgender males who started testosterone had lower internalizing mental health symptoms (depression and anxiety) compared with those who had not started testosterone treatment.

Four additional studies followed different outcome designs. In a retrospective chart study, Kaltiala, Heino et al. (2020) reported transgender

adolescents with few or no mental health challenges prior to commencing gender-affirming hormones generally did well during the treatment. However, adolescents with more mental health challenges at baseline continued to experience the manifestations of those mental health challenges over the course of gender-affirming medical treatment. Nieder et al. (2021) studied satisfaction with care as an outcome measure and demonstrated transgender adolescents were more satisfied the further they progressed with the treatments they initially started. Hisle-Gorman et al. (2021) compared health care utilization pre- and post-initiation of gender-affirming pharmaceuticals as indicators of the severity of mental health conditions among 3,754 TGD adolescents in a large health care data set. Somewhat contrary to the authors' hypothesis of improved mental health, mental health care use did not significantly change, and psychotropic medication prescriptions increased. In a large non-probability sample of transgender-identified adults, Turban et al. (2022) found those who reported access to gender-affirming hormones in adolescence had lower odds of past-year suicidality compared with transgender people accessing gender-affirming hormones in adulthood.

Providers may consider the possibility an adolescent may regret gender-affirming decisions made during adolescence, and a young person will want to stop treatment and return to living in the birth-assigned gender role in the future. Two Dutch studies report low rates of adolescents (1.9% and 3.5%) choosing to stop puberty suppression (Brik et al., 2019; Wiepjes et al., 2018). Again, these studies were conducted in clinics that follow a protocol that includes a comprehensive assessment before the gender-affirming medical treatment is started. At present, no clinical cohort studies have reported on profiles of adolescents who regret their initial decision or detransition after irreversible affirming treatment. Recent research indicate there are adolescents who detransition, but do not regret initiating treatment as they experienced the start of treatment as a part of understanding their gender-related care needs (Turban, 2018). However, this may not be the predominant perspective of people who

detransition (Littman, 2021; Vandebussche, 2021). Some adolescents may regret the steps they have taken (Dyer, 2020). Therefore, it is important to present the full range of possible outcomes when assisting transgender adolescents. Providers may discuss this topic in a collaborative and trusting manner (i.e., as a "potential future experience and consideration") with the adolescent and their parents/caregivers before gender-affirming medical treatments are started. Also, providers should be prepared to support adolescents who detransition. In an internet convenience sample survey of 237 self-identified detransitioners with a mean age of 25.02 years, which consisted of over 90% of birth assigned females, 25% had medically transitioned before age 18 and 14% detransitioned before age 18 (Vandebussche, 2021). Although an internet convenience sample is subject to selection of respondents, this study suggests detransitioning may occur in young transgender adolescents and health care professionals should be aware of this. Many of them expressed difficulties finding help during their detransition process and reported their detransition was an isolating experience during which they did not receive either sufficient or appropriate support (Vandebussche, 2021).

To conclude, although the existing samples reported on relatively small groups of youth (e.g., $n = 22-101$ per study) and the time to follow-up varied across studies (6 months–7 years), this emerging evidence base indicates a general improvement in the lives of transgender adolescents who, following careful assessment, receive medically necessary gender-affirming medical treatment. Further, rates of reported regret during the study monitoring periods are low. Taken as a whole, the data show early medical intervention—as part of broader combined assessment and treatment approaches focused on gender dysphoria and general well-being—can be effective and helpful for many transgender adolescents seeking these treatments.

Ethical and human rights perspectives

Medical ethics and human rights perspectives were also considered while formulating the

Statements of Recommendations

- 6.1- We recommend health care professionals working with gender diverse adolescents:
- 6.1.a- Are licensed by their statutory body and hold a postgraduate degree or its equivalent in a clinical field relevant to this role granted by a nationally accredited statutory institution.
- 6.1.b- Receive theoretical and evidenced-based training and develop expertise in general child, adolescent, and family mental health across the developmental spectrum.
- 6.1.c- Receive training and have expertise in gender identity development, gender diversity in children and adolescents, have the ability to assess capacity to assent/consent, and possess general knowledge of gender diversity across the life span.
- 6.1.d- Receive training and develop expertise in autism spectrum disorders and other neurodevelopmental presentations or collaborate with a developmental disability expert when working with autistic/neurodivergent gender diverse adolescents.
- 6.1.e- Continue engaging in professional development in all areas relevant to gender diverse children, adolescents, and families.
- 6.2- We recommend health care professionals working with gender diverse adolescents facilitate the exploration and expression of gender openly and respectfully so that no one particular identity is favored.
- 6.3- We recommend health care professionals working with gender diverse adolescents undertake a comprehensive biopsychosocial assessment of adolescents who present with gender identity-related concerns and seek medical/surgical transition-related care, and that this be accomplished in a collaborative and supportive manner.
- 6.4- We recommend health care professionals work with families, schools, and other relevant settings to promote acceptance of gender diverse expressions of behavior and identities of the adolescent.
- 6.5- We recommend against offering reparative and conversion therapy aimed at trying to change a person's gender and lived gender expression to become more congruent with the sex assigned at birth.
- 6.6- We suggest health care professionals provide transgender and gender diverse adolescents with health education on chest binding and genital tucking, including a review of the benefits and risks.
- 6.7- We recommend providers consider prescribing menstrual suppression agents for adolescents experiencing gender incongruence who may not desire testosterone therapy, who desire but have not yet begun testosterone therapy, or in conjunction with testosterone therapy for breakthrough bleeding.
- 6.8- We recommend health care professionals maintain an ongoing relationship with the gender diverse and transgender adolescent and any relevant caregivers to support the adolescent in their decision-making throughout the duration of puberty suppression treatment, hormonal treatment, and gender-related surgery until the transition is made to adult care.
- 6.9- We recommend health care professionals involve relevant disciplines, including mental health and medical professionals, to reach a decision about whether puberty suppression, hormone initiation, or gender-related surgery for gender diverse and transgender adolescents are appropriate and remain indicated throughout the course of treatment until the transition is made to adult care.
- 6.10- We recommend health care professionals working with transgender and gender diverse adolescents requesting gender-affirming medical or surgical treatments inform them, prior to initiating treatment, of the reproductive effects including the potential loss of fertility and available options to preserve fertility within the context of the youth's stage of pubertal development.
- 6.11- We recommend when gender-affirming medical or surgical treatments are indicated for adolescents, health care professionals working with transgender and gender diverse adolescents involve parent(s)/guardian(s) in the assessment and treatment process, unless their involvement is determined to be harmful to the adolescent or not feasible.

The following recommendations are made regarding the requirements for gender-affirming medical and surgical treatment (All of them must be met):

- 6.12- We recommend health care professionals assessing transgender and gender diverse adolescents only recommend gender-affirming medical or surgical treatments requested by the patient when:
- 6.12.a- The adolescent meets the diagnostic criteria of gender incongruence as per the ICD-11 in situations where a diagnosis is necessary to access health care. In countries that have not implemented the latest ICD, other taxonomies may be used although efforts should be undertaken to utilize the latest ICD as soon as practicable.
- 6.12.b- The experience of gender diversity/incongruence is marked and sustained over time.
- 6.12.c- The adolescent demonstrates the emotional and cognitive maturity required to provide informed consent/assent for the treatment.
- 6.12.d- The adolescent's mental health concerns (if any) that may interfere with diagnostic clarity, capacity to consent, and gender-affirming medical treatments have been addressed.
- 6.12.e- The adolescent has been informed of the reproductive effects, including the potential loss of fertility and the available options to preserve fertility, and these have been discussed in the context of the adolescent's stage of pubertal development.
- 6.12.f- The adolescent has reached Tanner stage 2 of puberty for pubertal suppression to be initiated.
- 6.12.g- The adolescent had at least 12 months of gender-affirming hormone therapy or longer, if required, to achieve the desired surgical result for gender-affirming procedures, including breast augmentation, orchiectomy, vaginoplasty, hysterectomy, phalloplasty, metoidioplasty, and facial surgery as part of gender-affirming treatment unless hormone therapy is either not desired or is medically contraindicated.

adolescent SOC statements. For example, allowing irreversible puberty to progress in adolescents who experience gender incongruence is not a neutral act given that it may have immediate and lifelong harmful effects for the transgender young person (Giordano, 2009; Giordano

& Holm, 2020; Kreukels & Cohen-Kettenis, 2011). From a human rights perspective, considering gender diversity as a normal and expected variation within the broader diversity of the human experience, it is an adolescent's right to participate in their own decision-making

process about their health and lives, including access to gender health services (Amnesty International, 2020).

Short summary of statements and unique issues in adolescence

These guidelines are designed to account for what is known and what is not known about gender identity development in adolescence, the evidence for gender-affirming care in adolescence, and the unique aspects that distinguish adolescence from other developmental stages.

Identity exploration: A defining feature of adolescence is the solidifying of aspects of identity, including gender identity. Statement 6.2 addresses identity exploration in the context of gender identity development. Statement 6.12.b accounts for the length of time needed for a young person to experience a gender diverse identity, express a gender diverse identity, or both, so as to make a meaningful decision regarding gender-affirming care.

Consent and decision-making: In adolescence, consent and decision-making require assessment of the individual's emotional, cognitive, and psychosocial development. Statement 6.12.c directly addresses emotional and cognitive maturity and describes the necessary components of the evaluation process used to assess decision-making capacity.

Caregivers/parent involvement: Adolescents are typically dependent on their caregivers/parents for guidance in numerous ways. This is also true as the young person navigates through the process of deciding about treatment options. Statement 6.11 addresses the importance of involving caregivers/parents and discusses the role they play in the assessment and treatment. No set of guidelines can account for every set of individual circumstances on a global scale.

Statement 6.1

We recommend health care professionals working with gender diverse adolescents:

- a. **Are licensed by their statutory body and hold a postgraduate degree or its equivalent in a clinical field relevant to this role granted by a nationally accredited statutory institution.**
- b. **Receive theoretical and evidenced-based training and develop expertise in general**

- child, adolescent, and family mental health across the developmental spectrum.
- c. **Receive training and have expertise in gender identity development, gender diversity in children and adolescents, have the ability to assess capacity to assent/consent, and possess general knowledge of gender diversity across the life span.**
- d. **Receive training and develop expertise in autism spectrum disorders and other neurodevelopmental presentations or collaborate with a developmental disability expert when working with autistic/neurodivergent gender diverse adolescents.**
- e. **Continue engaging in professional development in all areas relevant to gender diverse children, adolescents, and families.**

When assessing and supporting TGD adolescents and their families, care providers/health care professionals (HCPs) need both general as well as gender-specific knowledge and training. Providers who are trained to work with adolescents and families play an important role in navigating aspects of adolescent development and family dynamics when caring for youth and families (Adelson et al., 2012; American Psychological Association, 2015; Hembree et al., 2017). Other chapters in these standards of care describe these criteria for professionals who provide gender care in more detail (see Chapter 5—Assessment for Adults; Chapter 7—Children; or Chapter 13—Surgery and Postoperative Care). Professionals working with adolescents should understand what is and is not known regarding adolescent gender identity development, and how this knowledge base differs from what applies to adults and prepubertal children. Among HCPs, the mental health professional (MHP) has the most appropriate training and dedicated clinical time to conduct an assessment and elucidate treatment priorities and goals when working with transgender youth, including those seeking gender-affirming medical/surgical care. Understanding and managing the dynamics of family members who may share differing perspectives regarding the history and needs of the

young person is an important competency that MHPs are often most prepared to address.

When access to professionals trained in child and adolescent development is not possible, HCPs should make a commitment to obtain training in the areas of family dynamics and adolescent development, including gender identity development. Similarly, considering autistic/neurodivergent transgender youth represent a substantial minority subpopulation of youth served in gender clinics globally, it is important HCPs seek additional training in the field of autism and understand the unique elements of care autistic gender diverse youth may require (Strang, Meagher et al., 2018). If these qualifications are not possible, then consultation and collaboration with a provider who specializes in autism and neurodiversity is advised.

Statement 6.2

We recommend health care professionals working with gender diverse adolescents facilitate the exploration and expression of gender openly and respectfully so that no one particular identity is favored.

Adolescence is a developmental period that involves physical and psychological changes characterized by individuation and the transition to independence from caregivers (Berenbaum et al., 2015; Steinberg, 2009). It is a period during which young people may explore different aspects of identity, including gender identity.

Adolescents differ regarding the degree to which they explore and commit to aspects of their identity (Meeus et al., 2012). For some adolescents, the pace to achieving consolidation of identity is fast, while for others it is slower. For some adolescents, physical, emotional, and psychological development occur over the same general timeline, while for others, there are certain gaps between these aspects of development. Similarly, there is variation in the timeline for gender identity development (Arnoldussen et al., 2020; Katz-Wise et al., 2017). For some young people, gender identity development is a clear process that starts in early childhood, while for others pubertal changes contribute to a person's experience of themselves as a particular gender (Steensma, Kreukels et al., 2013), and for many others a process may begin well after pubertal

changes are completed. Given these variations, there is no one particular pace, process, or outcome that can be predicted for an individual adolescent seeking gender-affirming care.

Therefore, HCPs working with adolescents should promote supportive environments that simultaneously respect an adolescent's affirmed gender identity and also allows the adolescent to openly explore gender needs, including social, medical, and physical gender-affirming interventions should they change or evolve over time.

Statement 6.3

We recommend health care professionals working with gender diverse adolescents undertake a comprehensive biopsychosocial assessment of adolescents who present with gender identity-related concerns and seek medical/surgical transition-related care, and that this be accomplished in a collaborative and supportive manner.

Given the many ways identity may unfold during adolescence, we recommend using a comprehensive biopsychosocial assessment to guide treatment decisions and optimize outcomes. This assessment should aim to understand the adolescent's strengths, vulnerabilities, diagnostic profile, and unique needs to individualize their care. As mentioned in Statement 6.1, MHPs have the most appropriate training, experience, and dedicated clinical time required to obtain the information discussed here. The assessment process should be approached collaboratively with the adolescent and their caregiver(s), both separately and together, as described in more detail in Statement 6.11. An assessment should occur prior to any medically necessary medical or surgical intervention under consideration (e.g., puberty blocking medication, gender-affirming hormones, surgeries). See medically necessary statement in Chapter 2—Global Applicability, Statement 2.1; see also Chapter 12—Hormone Therapy and Chapter 13—Surgery and Postoperative Care.

Youth may experience many different gender identity trajectories. Sociocultural definitions and experiences of gender continue to evolve over time, and youth are increasingly presenting with a range of identities and ways of describing their experiences and gender-related needs (Twist & de

Graaf, 2019). For example, some youth will realize they are transgender or more broadly gender diverse and pursue steps to present accordingly. For some youth, obtaining gender-affirming medical treatment is important while for others these steps may not be necessary. For example, a process of exploration over time might not result in the young person self-affirming or embodying a different gender in relation to their assigned sex at birth and would not involve the use of medical interventions (Arnoldussen et al., 2019).

The most robust longitudinal evidence supporting the benefits of gender-affirming medical and surgical treatments in adolescence was obtained in a clinical setting that incorporated a detailed comprehensive diagnostic assessment process over time into its delivery of care protocol (de Vries & Cohen-Kettenis, 2012; de Vries et al., 2014). Given this research and the ongoing evolution of gender diverse experiences in society, a comprehensive diagnostic biopsychosocial assessment during adolescence is both evidence-based and preserves the integrity of the decision-making process. In the absence of a full diagnostic profile, other mental health entities that need to be prioritized and treated may not be detected. There are no studies of the long-term outcomes of gender-related medical treatments for youth who have not undergone a comprehensive assessment. Treatment in this context (e.g., with limited or no assessment) has no empirical support and therefore carries the risk that the decision to start gender-affirming medical interventions may not be in the long-term best interest of the young person at that time.

As delivery of health care and access to specialists varies globally, designing a particular assessment process to adapt existing resources is often necessary. In some cases, a more extended assessment process may be useful, such as for youth with more complex presentations (e.g., complicating mental health histories (Leibowitz & de Vries, 2016)), co-occurring autism spectrum characteristics (Strang, Powers et al., 2018), and/or an absence of experienced childhood gender incongruence (Ristori & Steensma, 2016). Given the unique cultural, financial, and geographical factors that exist for specific populations, providers should design assessment models that are flexible and allow for appropriately timed care for as many

young people as possible, so long as the assessment effectively obtains information about the adolescent's strengths, vulnerabilities, diagnostic profile, and individual needs. Psychometrically validated psychosocial and gender measures can also be used to provide additional information.

The multidisciplinary assessment for youth seeking gender-affirming medical/surgical interventions includes the following domains that correspond to the relevant statements:

- **Gender Identity Development:** Statements 6.12.a and 6.12.b elaborate on the factors associated with gender identity development within the specific cultural context when assessing TGD adolescents.
- **Social Development and Support; Intersectionality:** Statements 6.4 and 6.11 elaborate on the importance of assessing gender minority stress, family dynamics, and other aspects contributing to social development and intersectionality.
- **Diagnostic Assessment of Possible Co-Occurring Mental Health and/or Developmental Concerns:** Statement 6.12.d elaborates on the importance of understanding the relationship that exists, if at all, between any co-occurring mental health or developmental concerns and the young person's gender identity/gender diverse expression.
- **Capacity for Decision-Making:** Statement 6.12.c elaborates on the assessment of a young person's emotional maturity and the relevance when an adolescent is considering gender affirming-medical/surgical treatments.

Statement 6.4

We recommend health care professionals work with families, schools, and other relevant settings to promote acceptance of gender diverse expressions of behavior and identities of the adolescent.

Multiple studies and related expert consensus support the implementation of approaches that promote acceptance and affirmation of gender diverse youth across all settings, including families, schools, health care facilities, and all other organizations and communities with which they

interact (e.g., Pariseau et al., 2019; Russell et al., 2018; Simons et al., 2013; Toomey et al., 2010; Travers et al., 2012). Acceptance and affirmation are accomplished through a range of approaches, actions, and policies we recommend be enacted across the various relationships and settings in which a young person exists and functions. It is important for the family members and community members involved in the adolescent's life to work collaboratively in these efforts unless their involvement is considered harmful to the adolescent. Examples proposed by Pariseau et al. (2019) and others of acceptance and affirmation of gender diversity and contemplation and expression of identity that can be implemented by family, staff, and organizations include:

1. Actions that are supportive of youth drawn to engaging in gender-expansive (e.g., non-conforming) activities and interests;
2. Communications that are supportive when youth express their experiences about their gender and gender exploration;
3. Use of the youth's asserted name/pronouns;
4. Support for youth wearing clothing/uniforms, hairstyles, and items (e.g., jewelry, makeup) they feel affirm their gender;
5. Positive and supportive communication with youth about their gender and gender concerns;
6. Education about gender diversity issues for people in the young person's life (e.g., family members, health care providers, social support networks), as needed, including information about how to advocate for gender diverse youth in community, school, health care, and other settings;
7. Support for gender diverse youth to connect with communities of support (e.g., LGBTQ groups, events, friends);
8. Provision of opportunities to discuss, consider, and explore medical treatment options when indicated;
9. Antibullying policies that are enforced;
10. Inclusion of nonbinary experiences in daily life, reading materials, and curricula (e.g., books, health, and sex education classes, assigned essay topics that move beyond the binary, LGBTQ, and ally groups);

11. Gender inclusive facilities that the youth can readily access without segregation from nongender diverse peers (e.g., bathrooms, locker rooms).

We recommend HCPs work with parents, schools, and other organizations/groups to promote acceptance and affirmation of TGD identities and expressions, whether social or medical interventions are implemented or not as acceptance and affirmation are associated with fewer negative mental health and behavioral symptoms and more positive mental health and behavioral functioning (Day et al., 2015; de Vries et al., 2016; Greytak et al., 2013; Pariseau et al., 2019; Peng et al., 2019; Russell et al., 2018; Simons et al., 2013; Taliaferro et al., 2019; Toomey et al., 2010; Travers et al., 2012). Russell et al. (2018) found mental health improvement increases with more acceptance and affirmation across more settings (e.g., home, school, work, and friends). Rejection by family, peers, and school staff (e.g., intentionally using the name and pronoun the youth does not identify with, not acknowledging affirmed gender identity, bullying, harassment, verbal and physical abuse, poor relationships, rejection for being TGD, eviction) was strongly linked to negative outcomes, such as anxiety, depression, suicidal ideation, suicide attempts, and substance use (Grossman et al., 2005; Klein & Golub; 2016; Pariseau et al., 2019; Peng et al., 2019; Reisner, Greytak et al., 2015; Roberts et al., 2013). It is important to be aware that negative symptoms increase with increased levels of rejection and continue into adulthood (Roberts et al., 2013).

Neutral or indifferent responses to a youth's gender diversity and exploration (e.g., letting a child tell others their chosen name but not using the name, not telling family or friends when the youth wants them to disclose, not advocating for the child about rejecting behavior from school staff or peers, not engaging or participating in other support mechanisms (e.g., with psychotherapists and support groups) have also been found to have negative consequences, such as increased depressive symptoms (Pariseau et al., 2019). For these reasons, it is important not to ignore a youth's gender questioning or delay consideration of the youth's gender-related

care needs. There is particular value in professionals recognizing youth need individualized approaches, support, and consideration of needs around gender expression, identity, and embodiment over time and across domains and relationships. Youth may need help coping with the tension of tolerating others' processing/adjusting to an adolescent's identity exploration and changes (e.g., Kuper, Lindley et al., 2019). It is important professionals collaborate with parents and others as they process their concerns and feelings and educate themselves about gender diversity because such processes may not necessarily reflect rejection or neutrality but may rather represent efforts to develop attitudes and gather information that foster acceptance (e.g., Katz-Wise et al., 2017).

Statement 6.5

We recommend against offering reparative and conversion therapy aimed at trying to change a person's gender and lived gender expression to become more congruent with the sex assigned at birth.

Some health care providers, secular or religious organizations, and rejecting families may undertake efforts to thwart an adolescent's expression of gender diversity or assertion of a gender identity other than the expression and behavior that conforms to the sex assigned at birth. Such efforts at blocking reversible social expression or transition may include choosing not to use the youth's identified name and pronouns or restricting self-expression in clothing and hairstyles (Craig et al., 2017; Green et al., 2020). These disaffirming behaviors typically aim to reinforce views that a young person's gender identity/expression must match the gender associated with the sex assigned at birth or expectations based on the sex assigned at birth. Activities and approaches (sometimes referred to as "treatments") aimed at trying to change a person's gender identity and expression to become more congruent with the sex assigned at birth have been attempted, but these approaches have not resulted in changes in gender identity (Craig et al., 2017; Green et al., 2020). We recommend against such efforts because they have been found to be ineffective

and are associated with increases in mental illness and poorer psychological functioning (Craig et al., 2017; Green et al., 2020; Turban, Beckwith et al., 2020).

Much of the research evaluating "conversion therapy" and "reparative therapy" has investigated the impact of efforts to change gender expression (masculinity or femininity) and has conflated sexual orientation with gender identity (APA, 2009; Burnes et al., 2016; Craig et al., 2017). Some of these efforts have targeted both gender identity and expression (AACAP, 2018). Conversion/reparative therapy has been linked to increased anxiety, depression, suicidal ideation, suicide attempts, and health care avoidance (Craig et al., 2017; Green et al., 2020; Turban, Beckwith et al., 2020). Although some of these studies have been criticized for their methodologies and conclusions (e.g., D'Angelo et al., 2020), this should not detract from the importance of emphasizing efforts undertaken a priori to change a person's identity are clinically and ethically unsound. We recommend against any type of conversion or attempts to change a person's gender identity because 1) both secular and religion-based efforts to change gender identity/expression have been associated with negative psychological functioning that endures into adulthood (Turban, Beckwith et al., 2020); and 2) larger ethical reasons exist that should underscore respect for gender diverse identities.

It is important to note potential factors driving a young person's gender-related experience and report of gender incongruence, when carried out in the context of supporting an adolescent with self-discovery, is not considered reparative therapy as long as there is no a priori goal to change or promote one particular gender identity or expression (AACAP, 2018; see Statement 6.2). To ensure these explorations are therapeutic, we recommend employing affirmative consideration and supportive tone in discussing what steps have been tried, considered, and planned for a youth's gender expression. These discussion topics may include what felt helpful or affirming, what felt unhelpful or distressing and why. We recommend employing affirmative responses to these steps and discussions, such as those identified in SOC-8 Statement 6.4.

Statement 6.6

We suggest health care professionals provide transgender and gender diverse adolescents with health education on chest binding and genital tucking, including review of the benefits and risks.

TGD youth may experience distress related to chest and genital anatomy. Practices such as chest binding, chest padding, genital tucking, and genital packing are reversible, nonmedical interventions that may help alleviate this distress (Callen-Lorde, 2020a, 2020b; Deutsch, 2016a; Olson-Kennedy, Rosenthal et al., 2018; Transcare BC, 2020). It is important to assess the degree of distress related to physical development or anatomy, educate youth about potential nonmedical interventions to address this distress, and discuss the safe use of these interventions.

Chest binding involves compression of the breast tissue to create a flatter appearance of the chest. Studies suggest that up to 87% of trans masculine patients report a history of binding (Jones, 2015; Peitzmeier, 2017). Binding methods may include the use of commercial binders, sports bras, layering of shirts, layering of sports bras, or the use of elastics or other bandages (Peitzmeier, 2017). Currently, most youth report learning about binding practices from online communities composed of peers (Julian, 2019). Providers can play an important role in ensuring youth receive accurate and reliable information about the potential benefits and risks of chest binding. Additionally, providers can counsel patients about safe binding practices and monitor for potential negative health effects. While there are potential negative physical impacts of binding, youth who bind report many benefits, including increased comfort, improved safety, and lower rates of misgendering (Julian, 2019). Common negative health impacts of chest binding in youth include back/chest pain, shortness of breath, and overheating (Julian, 2019). More serious negative health impacts such as skin infections, respiratory infections, and rib fractures are uncommon and have been associated with chest binding in adults (Peitzmeier, 2017). If binding is employed, youth should be advised to use only those methods considered safe for binding—such as binders specifically designed for the

gender diverse population—to reduce the risk of serious negative health effects. Methods that are considered unsafe for binding include the use of duct tape, ace wraps, and plastic wrap as these can restrict blood flow, damage skin, and restrict breathing. If youth report negative health impacts from chest binding, these should ideally be addressed by a gender-affirming medical provider with experience working with TGD youth.

Genital tucking is the practice of positioning the penis and testes to reduce the outward appearance of a genital bulge. Methods of tucking include tucking the penis and testes between the legs or tucking the testes inside the inguinal canal and pulling the penis back between the legs. Typically, genitals are held in place by underwear or a gaff, a garment that can be made or purchased. Limited studies are available on the specific risks and benefits of tucking in adults, and none have been carried out in youth. Previous studies have reported tight undergarments are associated with decreased sperm concentration and motility. In addition, elevated scrotal temperatures can be associated with poor sperm characteristics, and genital tucking could theoretically affect spermatogenesis and fertility (Marsh, 2019) although there are no definitive studies evaluating these adverse outcomes. Further research is needed to determine the specific benefits and risks of tucking in youth.

Statement 6.7

We recommend providers consider prescribing menstrual suppression agents for adolescents experiencing gender incongruence who may not desire testosterone therapy, who desire but have not yet begun testosterone therapy, or in conjunction with testosterone therapy for breakthrough bleeding.

When discussing the available options of menstrual-suppressing medications with gender diverse youth, providers should engage in shared decision-making, use gender-inclusive language (e.g., asking patients which terms they utilize to refer to their menses, reproductive organs, and genitalia) and perform physical exams in a sensitive, gender-affirmative manner (Bonnington et al., 2020; Krempasky et al., 2020). There is no formal research evaluating how menstrual

suppression may impact gender incongruence and/or dysphoria. However, the use of menstrual suppression can be an initial intervention that allows for further exploration of gender-related goals of care, prioritization of other mental health care, or both, especially for those who experience a worsening of gender dysphoria from unwanted uterine bleeding (see Statement 6.12d; Mehringer & Dowshen, 2019). When testosterone is not used, menstrual suppression can be achieved via a progestin. To exclude any underlying menstrual disorders, it is important to obtain a detailed menstrual history and evaluation prior to implementing menstrual-suppressing therapy (Carswell & Roberts, 2017). As part of the discussion about menstrual-suppressing medications, the need for contraception and information regarding the effectiveness of menstrual-suppressing medications as methods of contraception also need to be addressed (Bonnington et al., 2020). A variety of menstrual suppression options, such as combined estrogen-progestin medications, oral progestins, depot and subdermal progestin, and intrauterine devices (IUDs), should be offered to allow for individualized treatment plans while properly considering availability, cost and insurance coverage, as well as contraindications and side effects (Kanj et al., 2019).

Progestin-only hormonal medication are options, especially in trans masculine or nonbinary youth who are not interested in estrogen-containing medical therapies as well as those at risk for thromboembolic events or who have other contraindications to estrogen therapy (Carswell & Roberts, 2017). Progestin-only hormonal medications include oral progestins, depo-medroxyprogesterone injection, etonogestrel implant, and levonorgestrel IUD (Schwartz et al., 2019). Progestin-only hormonal options vary in terms of efficacy in achieving menstrual suppression and have lower rates of achieving amenorrhea than combined oral contraception (Pradhan & Gomez-Lobo, 2019). A more detailed description of the relevant clinical studies is presented in Chapter 12—Hormone Therapy. HCPs should not make assumptions regarding the individual's preferred method of administration as some trans masculine youth may prefer vaginal rings or IUD implants (Akgul et al., 2019). Although hormonal

medications require monitoring for potential mood lability, depressive effects, or both, the benefits and risks of untreated menstrual suppression in the setting of gender dysphoria should be evaluated on an individual basis. Some patients may opt for combined oral contraception that includes different combinations of ethinyl estradiol, with ranging doses, and different generations of progestins (Pradhan & Gomez-Lobo, 2019). Lower dose ethinyl estradiol components of combined oral contraceptive pills are associated with increased breakthrough uterine bleeding. Continuous combined oral contraceptives may be used to allow for continuous menstrual suppression and can be delivered as transdermal or vaginal rings.

The use of gonadotropin releasing hormone (GnRH) analogues may also result in menstrual suppression. However, it is recommended gender diverse youth meet the eligibility criteria (as outlined in Statement 6.12) before this medication is considered solely for this purpose (Carswell & Roberts, 2017; Pradhan & Gomez-Lobo, 2019). Finally, menstrual-suppression medications may be indicated as an adjunctive therapy for breakthrough uterine bleeding that may occur while on exogenous testosterone or as a bridging medication while awaiting menstrual suppression with testosterone therapy. When exogenous testosterone is employed as a gender-affirming hormone, menstrual suppression is typically achieved in the first six months of therapy (Ahmad & Leinung, 2017). However, it is vital adolescents be counseled ovulation and pregnancy can still occur in the setting of amenorrhea (Gomez et al., 2020; Kanj et al., 2019).

Statement 6.8

We recommend health care professionals maintain an ongoing relationship with the gender diverse and transgender adolescent and any relevant caregivers to support the adolescent in their decision-making throughout the duration of puberty suppression treatment, hormonal treatment, and gender-related surgery until the transition is made to adult care.

HCPs with expertise in child and adolescent development, as described in Statement 6.1, play an important role in the continuity of care for

young people over the course of their gender-related treatment needs. Supporting adolescents and their families necessitates approaching care using a developmental lens through which understanding a young person's evolving emotional maturity and care needs can take place over time. As gender-affirming treatment pathways differ based on the needs and experiences of individual TGD adolescents, decision-making for these treatments (puberty suppression, estrogens/androgens, gender-affirmation surgeries) can occur at different points in time within a span of several years. Longitudinal research demonstrating the benefits of pubertal suppression and gender-affirming hormone treatment (GAHT) was carried out in a setting where an ongoing clinical relationship between the adolescents/families and the multidisciplinary team was maintained (de Vries et al., 2014).

Clinical settings that offer longer appointment times provide space for adolescents and caregivers to share important psychosocial aspects of emotional well-being (e.g., family dynamics, school, romantic, and sexual experiences) that contextualize individualized gender-affirming treatment needs and decisions as described elsewhere in the chapter. An ongoing clinical relationship can take place across settings, whether that be within a multidisciplinary team or with providers in different locations who collaborate with one another. Given the wide variability in the ability to obtain access to specialized gender care centers, particularly for marginalized groups who experience disparities with access, it is important for the HCP to appreciate the existence of any barriers to care while maintaining flexibility when defining how an ongoing clinical relationship can take place in that specific context.

An ongoing clinical relationship that increases resilience in the youth and provides support to parents/caregivers who may have their own treatment needs may ultimately lead to increased parental acceptance—when needed—which is associated with better mental health outcomes in youth (Ryan, Huebner et al., 2009).

Statement 6.9

We recommend health care professionals involve relevant disciplines, including mental health

and medical professionals, to reach a decision about whether puberty suppression, hormone initiation, or gender-related surgery for gender diverse and transgender adolescents are appropriate and remain indicated throughout the course of treatment until the transition is made to adult care.

TGD adolescents with gender dysphoria/gender incongruence who seek gender-affirming medical and surgical treatments benefit from the involvement of health care professionals (HCPs) from different disciplines. Providing care to TGD adolescents includes addressing 1) diagnostic considerations (see Statements 6.3, 6.12a, and 6.12b) conducted by a specialized gender HCP (as defined in Statement 6.1) whenever possible and necessary; and 2) treatment considerations when prescribing, managing, and monitoring medications for gender-affirming medical and surgical care, requiring the training of the relevant medical/surgical professional. The list of key disciplines includes but is not limited to adolescent medicine/primary care, endocrinology, psychology, psychiatry, speech/language pathology, social work, support staff, and the surgical team.

The evolving evidence has shown a clinical benefit for transgender youth who receive their gender-affirming treatments in multidisciplinary gender clinics (de Vries et al., 2014; Kuper et al., 2020; Tollit et al., 2019). Finally, adolescents seeking gender-affirming care in multidisciplinary clinics are presenting with significant complexity necessitating close collaboration between mental health, medical, and/or surgical professionals (McCallion et al., 2021; Sorbara et al., 2020; Tishelman et al., 2015).

As not all patients and families are in the position or in a location to access multidisciplinary care, the lack of available disciplines should not preclude a young person from accessing needed care in a timely manner. When disciplines are available, particularly in centers with existing multidisciplinary teams, disciplines, or both, it is recommended efforts be made to include the relevant providers when developing a gender care team. However, this does not mean all disciplines are necessary to provide care to a particular youth and family.

If written documentation or a letter is required to recommend gender-affirming medical and surgical treatment (GAMST) for an adolescent, only one letter of assessment from a member of the multidisciplinary team is needed. This letter needs to reflect the assessment and opinion from the team that involves both medical HCPs and MHPs (American Psychological Association, 2015; Hembree et al., 2017; Telfer et al., 2018). Further assessment results and written opinions may be requested when there is a specific clinical need or when team members are in different locations or choose to write their own summaries. For further information see Chapter 5—Assessment for Adults, Statement 5.5.

Statement 6.10

We recommend health care professionals working with transgender and gender diverse adolescents requesting gender-affirming medical or surgical treatments inform them, prior to the initiation of treatment, of the reproductive effects, including the potential loss of fertility and available options to preserve fertility within the context of the youth's stage of pubertal development.

While assessing adolescents seeking gender-affirming medical or surgical treatments, HCPs should discuss the specific ways in which the required treatment may affect reproductive capacity. Fertility issues and the specific preservation options are more thoroughly discussed in Chapter 12—Hormone Therapy and Chapter 16—Reproductive Health.

It is important HCPs understand what fertility preservation options exist so they can relay the information to adolescents. Parents are advised to be involved in this process and should also understand the pros and cons of the different options. HCPs should acknowledge adolescents and parents may have different views around reproductive capacity and may therefore come to different decisions (Quain et al., 2020), which is why HCPs can be helpful in guiding this process.

HCPs should specifically pay attention to the developmental and psychological aspects of fertility preservation and decision-making competency for the individual adolescent. While adolescents may think they have made up their minds concerning their reproductive capacity, the possibility their opinions about having

biologically related children in the future might change over time needs to be discussed with an HCP who has sufficient experience, is knowledgeable about adolescent development, and has experience working with parents.

Addressing the long-term consequences on fertility of gender-affirming medical treatments and ensuring transgender adolescents have realistic expectations concerning fertility preservation options or adoption cannot not be addressed with a one-time discussion but should be part of an ongoing conversation. This conversation should occur not only before initiating any medical intervention (puberty suppression, hormones, or surgeries), but also during further treatment and during transition.

Currently, there are only preliminary results from retrospective studies evaluating transgender adults and the decisions they made when they were young regarding the consequences of medical-affirming treatment on reproductive capacity. It is important not to make assumptions about what future adult goals an adolescent may have. Research in childhood cancer survivors found participants who acknowledged missed opportunities for fertility preservation reported distress and regret surrounding potential infertility (Armuaud et al., 2014; Ellis et al., 2016; Lehmann et al., 2017). Furthermore, individuals with cancer who did not prioritize having biological children before treatment have reported “changing their minds” in survivorship (Armuaud et al., 2014).

Given the complexities of the different fertility preservation options and the challenges HCPs may experience discussing fertility with the adolescent and the family (Tishelman et al., 2019), a fertility consultation is an important consideration for every transgender adolescent who pursues medical-affirming treatments unless the local situation is such that a fertility consultation is not covered by insurance or public health care plans, is not available locally, or the individual circumstances make this unpreferable.

Statement 6.11

We recommend when gender-affirming medical or surgical treatments are indicated for adolescents, health care professionals working with transgender and gender diverse adolescents

involve parent(s)/guardian(s) in the assessment and treatment process, unless their involvement is determined to be harmful to the adolescent or not feasible.

When there is an indication an adolescent might benefit from a gender-affirming medical or surgical treatment, involving the parent(s) or primary caregiver(s) in the assessment process is recommended in almost all situations (Edwards-Leeper & Spack, 2012; Rafferty et al., 2018). Exceptions to this might include situations in which an adolescent is in foster care, child protective services, or both, and custody and parent involvement would be impossible, inappropriate, or harmful. Parent and family support of TGD youth is a primary predictor of youth well-being and is protective of the mental health of TGD youth (Gower, Rider, Coleman et al., 2018; Grossman et al., 2019; Lefevor et al., 2019; McConnell et al., 2015; Pariseau et al., 2019; Ryan, 2009; Ryan et al., 2010; Simons et al., 2013; Wilson et al., 2016). Therefore, including parent(s)/caregiver(s) in the assessment process to encourage and facilitate increased parental understanding and support of the adolescent may be one of the most helpful practices available.

Parent(s)/caregiver(s) may provide key information for the clinical team, such as the young person's gender and overall developmental, medical, and mental health history as well as insights into the young person's level of current support, general functioning, and well-being. Concordance or divergence of reports given by the adolescent and their parent(s)/caregiver(s) may be important information for the assessment team and can aid in designing and shaping individualized youth and family supports (De Los Reyes et al., 2019; Katz-Wise et al., 2017). Knowledge of the family context, including resilience factors and challenges, can help providers know where special supports would be needed during the medical treatment process. Engagement of parent(s)/caregiver(s) is also important for educating families about various treatment approaches, ongoing follow-up and care needs, and potential treatment complications. Through psychoeducation regarding clinical gender care options and participation in the assessment process, which may unfold over time, parent(s)/caregiver(s) may better understand their adolescent

child's gender-related experience and needs (Andrzejewski et al., 2020; Katz-Wise et al., 2017).

Parent/caregiver concerns or questions regarding the stability of gender-related needs over time and implications of various gender-affirming interventions are common and should not be dismissed. It is appropriate for parent(s)/caregiver(s) to ask these questions, and there are cases in which the parent(s)/caregiver(s)' questions or concerns are particularly helpful in informing treatment decisions and plans. For example, a parent/caregiver report may provide critical context in situations in which a young person experiences very recent or sudden self-awareness of gender diversity and a corresponding gender treatment request, or when there is concern for possible excessive peer and social media influence on a young person's current self-gender concept. Contextualization of the parent/caregiver report is also critical, as the report of a young person's gender history as provided by parent(s)/caregiver(s) may or may not align with the young person's self-report. Importantly, gender histories may be unknown to parent(s)/caregiver(s) because gender may be internal experience for youth, not known by others unless it is discussed. For this reason, an adolescent's report of their gender history and experience is central to the assessment process.

Some parents may present with unsupportive or antagonistic beliefs about TGD identities, clinical gender care, or both (Clark et al., 2020). Such unsupportive perspectives are an important therapeutic target for families. Although challenging parent perspectives may in some cases seem rigid, providers should not assume this is the case. There are many examples of parent(s)/caregiver(s) who, over time with support and psychoeducation, have become increasingly accepting of their TGD child's gender diversity and care needs.

Helping youth and parent(s)/caregiver(s) work together on important gender care decisions is a primary goal. However, in some cases, parent(s)/caregiver(s) may be too rejecting of their adolescent child and their child's gender needs to be part of the clinical evaluation process. In these situations, youth may require the engagement of larger systems of advocacy and support to move

forward with the necessary support and care (Dubin et al., 2020).

Statement 6.12

We recommend health care professionals assessing transgender and gender diverse adolescents only recommend gender-affirming medical or surgical treatments requested by the patient when:

Statement 6.12.a

The adolescent meets the diagnostic criteria of gender incongruence as per the ICD-11 in situations where a diagnosis is necessary to access health care. In countries that have not implemented the latest ICD, other taxonomies may be used although efforts should be undertaken to utilize the latest ICD as soon as practicable.

When working with TGD adolescents, HCPs should realize while a classification may give access to care, pathologizing transgender identities may be experienced as stigmatizing (Beek et al., 2016). Assessments related to gender health and gender diversity have been criticized, and controversies exist around diagnostic systems (Drescher, 2016).

HCPs should assess the overall gender-related history and gender care-related needs of youth. Through this assessment process, HCPs may provide a diagnosis when it is required to get access to transgender-related care.

Gender incongruence and gender dysphoria are the two diagnostic terms used in the World Health Organization's International Classification of Diseases (ICD) and the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM), respectively. Of these two widely used classification systems, the DSM is for psychiatric classifications only and the ICD contains all diseases and conditions related to physical as well as mental health. The most recent versions of these two systems, the DSM-5 and the ICD-11, reflect a long history of reconceptualizing and de-psychopathologizing gender-related diagnoses (American Psychiatric Association, 2013; World Health Organization, 2019a). Compared with the earlier version, the DSM-5 replaced gender identity disorder with gender dysphoria, acknowledging the distress experienced by some people stemming from the

incongruence between experienced gender identity and the sex assigned at birth. In the most recent revision, the DSM-5-TR, no changes in the diagnostic criteria for gender dysphoria are made. However, terminology was adapted into the most appropriate current language (e.g., birth-assigned gender instead of natal-gender and gender-affirming treatment instead of gender reassignment (American Psychiatric Association, 2022). Compared with the ICD 10th edition, the gender incongruence classification was moved from the Mental Health chapter to the Conditions Related to Sexual Health chapter in the ICD-11. When compared with the DSM-5 classification of gender dysphoria, one important reconceptualization is distress is not a required indicator of the ICD-11 classification of gender incongruence (WHO, 2019a). After all, when growing up in a supporting and accepting environment, the distress and impairment criterion, an inherent part of every mental health condition, may not be applicable (Drescher, 2012). As such, the ICD-11 classification of gender incongruence may better capture the fullness of gender diversity experiences and related clinical gender needs.

Criteria for the ICD-11 classification gender incongruence of adolescence or adulthood require a marked and persistent incongruence between an individual's experienced gender and the assigned sex, which often leads to a need to "transition" to live and be accepted as a person of the experienced gender. For some, this includes hormonal treatment, surgery, or other health care services to enable the individual's body to align as much as required, and to the extent possible, with the person's experienced gender. Relevant for adolescents is the indicator that a classification cannot be assigned "prior to the onset of puberty." Finally, it is noted "that gender variant behaviour and preferences alone are not a basis for assigning the classification" (WHO, ICD-11, 2019a).

Criteria for the DSM-5 and DSM-5-TR classification of gender dysphoria in adolescence and adulthood denote "a marked incongruence between one's experienced/expressed gender and assigned gender, of at least 6 months' duration' (criterion A, fulfilled when 2 of 6 subcriteria are manifest; DSM-5, APA, 2013; DSM 5-TR, APA, 2022).

Of note, although a gender-related classification is one of the requirements for receiving medical gender-affirming care, such a classification alone does not indicate a person needs medical-affirming care. The range of youth experiences of gender incongruence necessitates professionals provide a range of treatments or interventions based on the individual's needs. Counseling, gender exploration, mental health assessment and, when needed, treatment with MHPs trained in gender development may all be indicated with or without the implementation of medical-affirming care.

Statement 6.12.b

The experience of gender diversity/incongruence is marked and sustained over time.

Identity exploration and consolidation are experienced by many adolescents (Klimstra et al., 2010; Topolewska-Siedzik & Ciecuch, 2018). Identity exploration during adolescence may include a process of self-discovery around gender and gender identity (Steensma, Kreukels et al., 2013). Little is known about how processes that underlie consolidation of gender identity during adolescence (e.g., the process of commitment to specific identities) may impact a young person's experience(s) or needs over time.

Therefore, the level of reversibility of a gender-affirming medical intervention should be considered along with the sustained duration of a young person's experience of gender incongruence when initiating treatment. Given potential shifts in gender-related experiences and needs during adolescence, it is important to establish the young person has experienced several years of persistent gender diversity/incongruence prior to initiating less reversible treatments such as gender-affirming hormones or surgeries. Puberty suppression treatment, which provides more time for younger adolescents to engage their decision-making capacities, also raises important considerations (see Statement 6.12f and Chapter 12—Hormone Therapy) suggesting the importance of a sustained experience of gender incongruence/diversity prior to initiation. However, in this age group of younger adolescents, several years is not always practical nor necessary given the

premise of the treatment as a means to buy time while avoiding distress from irreversible pubertal changes. For youth who have experienced a shorter duration of gender incongruence, social transition-related and/or other medical supports (e.g., menstrual suppression/androgen blocking) may also provide some relief as well as furnishing additional information to the clinical team regarding a young person's broad gender care needs (see Statements 6.4, 6.6, and 6.7).

Establishing evidence of persistent gender diversity/incongruence typically requires careful assessment with the young person over time (see Statement 6.3). Whenever possible and when appropriate, the assessment and discernment process should also include the parent(s)/caregiver(s) (see Statement 6.11). Evidence demonstrating gender diversity/incongruence sustained over time can be provided via history obtained directly from the adolescent and parents/caregivers when this information is not documented in the medical records.

The research literature on continuity versus discontinuity of gender-affirming medical care needs/requests is complex and somewhat difficult to interpret. A series of studies conducted over the last several decades, including some with methodological challenges (as noted by Temple Newhook et al., 2018; Winters et al., 2018) suggest the experience of gender incongruence is not consistent for all children as they progress into adolescence. For example, a subset of youth who experienced gender incongruence or who socially transitioned prior to puberty over time can show a reduction in or even full discontinuation of gender incongruence (de Vries et al., 2010; Olson et al., 2022; Ristori & Steensma, 2016; Singh et al., 2021; Wagner et al., 2021). However, there has been less research focused on rates of continuity and discontinuity of gender incongruence and gender-related needs in pubertal and adolescent populations. The data available regarding broad unselected gender-referred pubertal/adolescent cohorts (from the Amsterdam transgender clinic) suggest that, following extended assessments over time, a subset of adolescents with gender incongruence presenting for gender care elect not to pursue gender-affirming medical care

(Arnoldussen et al., 2019; de Vries, Steensma et al., 2011). Importantly, findings from studies of gender incongruent pubertal/adolescent cohorts, in which participants who have undergone comprehensive gender evaluation over time, have shown persistent gender incongruence and gender-related need and have received referrals for medical gender care, suggest low levels of regret regarding gender-related medical care decisions (de Vries et al., 2014; Wiepjes et al., 2018). Critically, these findings of low regret can only currently be applied to youth who have demonstrated sustained gender incongruence and gender-related needs over time as established through a comprehensive and iterative assessment (see Statement 6.3).

Statement 6.12.c

The adolescent demonstrates the emotional and cognitive maturity required to provide informed consent/assent for the treatment.

The process of informed consent includes communication between a patient and their provider regarding the patient's understanding of a potential intervention as well as, ultimately, the patient's decision whether to receive the intervention. In most settings, for minors, the legal guardian is integral to the informed consent process: if a treatment is to be given, the legal guardian (often the parent[s]/caregiver[s]) provides the informed consent to do so. In most settings, assent is a somewhat parallel process in which the minor and the provider communicate about the intervention and the provider assesses the level of understanding and intention.

A necessary step in the informed consent/assent process for considering gender-affirming medical care is a careful discussion with qualified HCPs trained to assess the emotional and cognitive maturity of adolescents. The reversible and irreversible effects of the treatment, as well as fertility preservation options (when applicable), and all potential risks and benefits of the intervention are important components of the discussion. These discussions are required when obtaining informed consent/assent. Assessment of cognitive and emotional maturity is important because it helps the care team understand the adolescent's capacity to be informed.

The skills necessary to assent/consent to any medical intervention or treatment include the ability to 1) comprehend the nature of the treatment; 2) reason about treatment options, including the risks and benefits; 3) appreciate the nature of the decision, including the long-term consequences; and 4) communicate choice (Grootens-Wiegers et al., 2017). In the case of gender-affirming medical treatments, a young person should be well-informed about what the treatment may and may not accomplish, typical timelines for changes to appear (e.g., with gender-affirming hormones), and any implications of stopping the treatment. Gender-diverse youth should fully understand the reversible, partially reversible, and irreversible aspects of a treatment, as well as the limits of what is known about certain treatments (e.g., the impact of pubertal suppression on brain development (Chen and Loshak, 2020)). Gender-diverse youth should also understand, although many gender-diverse youth begin gender-affirming medical care and experience that care as a good fit for them long-term, there is a subset of individuals who over time discover this care is not a fit for them (Wiepjes et al., 2018). Youth should know such shifts are sometimes connected to a change in gender needs over time, and in some cases, a shift in gender identity itself. Given this information, gender diverse youth must be able to reason thoughtfully about treatment options, considering the implications of the choices at hand. Furthermore, as a foundation for providing assent, the gender-diverse young person needs to be able to communicate their choice.

The skills needed to accomplish the tasks required for assent/consent may not emerge at specific ages per se (Grootens-Wiegers et al., 2017). There may be variability in these capacities related to developmental differences and mental health presentations (Shumer & Tishelman, 2015) and dependent on the opportunities a young person has had to practice these skills (Alderson, 2007). Further, assessment of emotional and cognitive maturity must be conducted separately for each gender-related treatment decision (Vrouenraets et al., 2021).

The following questions may be useful to consider in assessing a young person's emotional and

cognitive readiness to assent or consent to a specific gender-affirming treatment:

- Can the young person think carefully into the future and consider the implications of a partially or fully irreversible intervention?
- Does the young person have sufficient self-reflective capacity to consider the possibility that gender-related needs and priorities can develop over time, and gender-related priorities at a certain point in time might change?
- Has the young person, to some extent, thought through the implications of what they might do if their priorities around gender do change in the future?
- Is the young person able to understand and manage the day-to-day short- and long-term aspects of a specific medical treatment (e.g., medication adherence, administration, and necessary medical follow-ups)?

Assessment of emotional and cognitive maturity may be accomplished over time as the care team continues to engage in conversations about the treatment options and affords the young person the opportunity to practice thinking into the future and flexibly consider options and implications. For youth with neurodevelopmental and/or some types of mental health differences, skills for future thinking, planning, big picture thinking, and self-reflection may be less-well developed (Dubbelink & Geurts, 2017). In these cases, a more careful approach to consent and assent may be required, and this may include additional time and structured opportunities for the young person to practice the skills necessary for medical decision-making (Strang, Powers et al., 2018).

For unique situations in which an adolescent minor is consenting for their own treatment without parental permission (see Statement 6.11), extra care must be taken to support the adolescent's informed decision-making. This will typically require greater levels of engagement of and collaboration between the HCPs working with the adolescent to provide the young person appropriate cognitive and emotional support to

consider options, weigh benefits and potential challenges/costs, and develop a plan for any needed (and potentially ongoing) supports associated with the treatment.

Statement 6.12.d

The adolescent's mental health concerns (if any) that may interfere with diagnostic clarity, capacity to consent, and/or gender-affirming medical treatments have been addressed.

Evidence indicates TGD adolescents are at increased risk of mental health challenges, often related to family/caregiver rejection, non-affirming community environments, and neurodiversity-related factors (e.g., de Vries et al., 2016; Pariseau et al., 2019; Ryan et al., 2010; Weinhardt et al., 2017). A young person's mental health challenges may impact their conceptualization of their gender development history and gender identity-related needs, the adolescent's capacity to consent, and the ability of the young person to engage in or receive medical treatment. Additionally, like cisgender youth, TGD youth may experience mental health concerns irrespective of the presence of gender dysphoria or gender incongruence. In particular, depression and self-harm may be of specific concern; many studies reveal depression scores and emotional and behavioral problems comparable to those reported in populations referred to mental health clinics (Leibowitz & de Vries, 2016). Higher rates of suicidal ideation, suicide attempts, and self-harm have also been reported (de Graaf et al., 2020). In addition, eating disorders occur more frequently than expected in non-referred populations (Khatchadourian et al., 2013; Ristori et al., 2019; Spack et al., 2012). Importantly, TGD adolescents show high rates of autism spectrum disorder/characteristics (Øien et al., 2018; van der Miesen et al., 2016; see also Statement 6.1d). Other neurodevelopmental presentations and/or mental health challenges may also be present, (e.g., ADHD, intellectual disability, and psychotic disorders (de Vries, Doreleijers et al., 2011; Meijer et al., 2018; Parkes & Hall, 2006).

Of note, many transgender adolescents are well-functioning and experience few if any mental health concerns. For example, socially transitioned pubertal adolescents who receive medical

gender-affirming treatment at specialized gender clinics may experience mental health outcomes equivalent to those of their cisgender peers (e.g., de Vries et al., 2014; van der Miesen et al., 2020). A provider's key task is to assess the direction of the relationships that exist between any mental health challenges and the young person's self-understanding of gender care needs and then prioritize accordingly.

Mental health difficulties may challenge the assessment and treatment of gender-related needs of TGD adolescents in various ways:

1. First, when a TGD adolescent is experiencing acute suicidality, self-harm, eating disorders, or other mental health crises that threaten physical health, safety must be prioritized. According to the local context and existing guidelines, appropriate care should seek to mitigate the threat or crisis so there is sufficient time and stabilization for thoughtful gender-related assessment and decision-making. For example, an actively suicidal adolescent may not be emotionally able to make an informed decision regarding gender-affirming medical/surgical treatment. If indicated, safety-related interventions should not preclude starting gender-affirming care.
2. Second, mental health can also complicate the assessment of gender development and gender identity-related needs. For example, it is critical to differentiate gender incongruence from specific mental health presentations, such as obsessions and compulsions, special interests in autism, rigid thinking, broader identity problems, parent/child interaction difficulties, severe developmental anxieties (e.g., fear of growing up and pubertal changes unrelated to gender identity), trauma, or psychotic thoughts. Mental health challenges that interfere with the clarity of identity development and gender-related decision-making should be prioritized and addressed.
3. Third, decision-making regarding gender-affirming medical treatments that have life-long consequences requires

thoughtful, future-oriented thinking by the adolescent, with support from the parents/caregivers, as indicated (see Statement 6.11). To be able to make such an informed decision, an adolescent should be able to understand the issues, express a choice, appreciate and give careful thought regarding the wish for medical-affirming treatment (see Statement 6.12c). Neurodevelopmental differences, such as autistic features or autism spectrum disorder (see Statement 6.1d, e.g., communication differences; a preference for concrete or rigid thinking; differences in self-awareness, future thinking and planning), may challenge the assessment and decision-making process; neurodivergent youth may require extra support, structure, psychoeducation, and time built into the assessment process (Strang, Powers et al., 2018). Other mental health presentations that involve reduced communication and self-advocacy, difficulty engaging in assessment, memory and concentration difficulties, hopelessness, and difficulty engaging in future-oriented thinking may complicate assessment and decision-making. In such cases, extended time is often necessary before any decisions regarding medical-affirming treatment can be made.

4. Finally, while addressing mental health concerns is important during the course of medical treatment, it does not mean all mental health challenges can or should be resolved completely. However, it is important any mental health concerns are addressed sufficiently so that gender-affirming medical treatment can be provided optimally (e.g., medication adherence, attending follow-up medical appointments, and self-care, particularly during a postoperative course).

Statement 6.12.e

The adolescent has been informed of the reproductive effects, including the potential loss of fertility, and available options to preserve fertility, and these have been discussed in the context of the adolescent's stage of pubertal development.

For guidelines regarding the clinical approach, the scientific background, and the rationale, see Chapter 12—Hormone Therapy and Chapter 16—Reproductive Health.

Statement 6.12.f

The adolescent has reached Tanner stage 2 of puberty for pubertal suppression to be initiated.

The onset of puberty is a pivotal point for many gender diverse youth. For some, it creates an intensification of their gender incongruence, and for others, pubertal onset may lead to gender fluidity (e.g., a transition from binary to nonbinary gender identity) or even attenuation of a previously affirmed gender identity (Drummond et al., 2008; Steensma et al., 2011, Steensma, Kreukels et al., 2013; Wallien & Cohen-Kettenis, 2008). The use of puberty-blocking medications, such as GnRH analogues, is not recommended until children have achieved a minimum of Tanner stage 2 of puberty because the experience of physical puberty may be critical for further gender identity development for some TGD adolescents (Steensma et al., 2011). Therefore, puberty blockers should not be implemented in prepubertal gender diverse youth (Waal & Cohen-Kettenis, 2006). For some youth, GnRH agonists may be appropriate in late stages or in the post-pubertal period (e.g., Tanner stage 4 or 5), and this should be highly individualized. See Chapter 12—Hormone Therapy for a more comprehensive review of the use of GnRH agonists.

Variations in the timing of pubertal onset is due to multiple factors (e.g., sex assigned at birth, genetics, nutrition, etc.). Tanner staging refers to five stages of pubertal development ranging from prepubertal (Tanner stage 1) to post-pubertal, and adult sexual maturity (Tanner stage 5) (Marshall & Tanner, 1969, 1970). For assigned females at birth, pubertal onset (e.g., gonadarche) is defined by the occurrence of breast budding (Tanner stage 2), and for birth-assigned males, the achievement of a testicular volume of greater than or equal to 4 mL (Roberts & Kaiser, 2020). An experienced medical provider should be relied on to differentiate the onset of puberty from physical changes such as pubic hair and apocrine body odor due to sex steroids produced by the adrenal gland (e.g., adrenarche) as adrenarche

does not warrant the use of puberty-blocking medications (Roberts & Kaiser, 2020). Educating parents and families about the difference between adrenarche and gonadarche helps families understand the timing during which shared decision-making about gender-affirming medical therapies should be undertaken with their multidisciplinary team.

The importance of addressing other risks and benefits of pubertal suppression, both hypothetical and actual, cannot be overstated. Evidence supports the existence of surgical implications for transgender girls who proceed with pubertal suppression (van de Grift et al., 2020). Longitudinal data exists to demonstrate improvement in romantic and sexual satisfaction for adolescents receiving puberty suppression, hormone treatment and surgery (Bungener et al., 2020). A study on surgical outcomes of laparoscopic intestinal vaginoplasty (performed because of limited genital tissue after the use of puberty blockers) in transgender women revealed that the majority experienced orgasm after surgery (84%), although a specific correlation between sexual pleasure outcomes and the timing of pubertal suppression initiation was not discussed in the study (Bouman, van der Sluis et al., 2016), nor does the study apply to those who would prefer a different surgical procedure. This underscores the importance of engaging in discussions with families about the future unknowns related to surgical and sexual health outcomes.

Statement 6.12.g

The adolescent had at least 12 months of gender-affirming hormone therapy or longer, if required, to achieve the desired surgical result for gender-affirming procedures, including breast augmentation, orchiectomy, vaginoplasty, hysterectomy, phalloplasty, metoidioplasty, and facial surgery as part of gender-affirming treatment unless hormone therapy is either not desired or is medically contraindicated.

GAHT leads to anatomical, physiological, and psychological changes. The onset of the anatomic effects (e.g., clitoral growth, breast growth, vaginal mucosal atrophy) may begin early after the initiation of therapy, and the peak effect is expected at 1–2 years (T'Sjoen et al., 2019). To

ensure sufficient time for psychological adaptations to the physical change during an important developmental time for the adolescent, 12 months of hormone treatment is suggested. Depending upon the surgical result required, a period of hormone treatment may need to be longer (e.g., sufficient clitoral virilization prior to metoidioplasty/phalloplasty, breast growth and skin expansion prior to breast augmentation, softening of skin and changes in facial fat distribution prior to facial GAS) (de Blok et al., 2021).

For individuals who are not taking hormones prior to surgical interventions, it is important surgeons review the impact of hormone therapy on the proposed surgery. In addition, for individuals undergoing gonadectomy who are not taking hormones, a plan for hormone replacement can be developed with their prescribing professional prior to surgery.

Consideration of ages for gender-affirming medical and surgical treatment for adolescents

Age has a strong, albeit imperfect, correlation with cognitive and psychosocial development and may be a useful objective marker for determining the potential timing of interventions (Ferguson et al., 2021). Higher (i.e., more advanced) ages may be required for treatments with greater irreversibility, complexity, or both. 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 Statement 6.12c).

A growing body of evidence indicates providing gender-affirming treatment for gender diverse youth who meet criteria leads to positive outcomes (Achille et al., 2020; de Vries et al., 2014; Kuper et al., 2020). There is, however, limited data on the optimal timing of gender-affirming interventions as well as the long-term physical, psychological, and neurodevelopmental outcomes in youth (Chen et al., 2020; Chew et al., 2018; Olson-Kennedy et al., 2016). Currently, the only existing longitudinal studies evaluating gender diverse youth and adult outcomes are based on a specific model (i.e., the Dutch approach) that involved a comprehensive initial assessment with follow-up. In this approach, pubertal suppression was considered at age 12, GAHT at age 16, and

surgical interventions after age 18 with exceptions in some cases. It is not clear if deviations from this approach would lead to the same or different outcomes. Longitudinal studies are currently underway to better define outcomes as well as the safety and efficacy of gender-affirming treatments in youth (Olson-Kennedy, Garofalo et al., 2019; Olson-Kennedy, Rosenthal et al., 2019). While the long-term effects of gender-affirming treatments initiated in adolescence are not fully known, the potential negative health consequences of delaying treatment should also be considered (de Vries et al., 2021). As the evidence base regarding outcomes of gender-affirming interventions in youth continues to grow, recommendations on the timing and readiness for these interventions may be updated.

Previous guidelines regarding gender-affirming treatment of adolescents recommended partially reversible GAHT could be initiated at approximately 16 years of age (Coleman et al., 2012; Hembree et al., 2009). More recent guidelines suggest there may be compelling reasons to initiate GAHT prior to the age of 16, although there are limited studies on youth who have initiated hormones prior to 14 years of age (Hembree et al., 2017). A compelling reason for earlier initiation of GAHT, for example, might be to avoid prolonged pubertal suppression, given potential bone health concerns and the psychosocial implications of delaying puberty as described in more detail in Chapter 12—Hormone Therapy (Klink, Caris et al., 2015; Schagen et al., 2020; Vlot et al., 2017; Zhu & Chan, 2017). Puberty is a time of significant brain and cognitive development. The potential neurodevelopmental impact of extended pubertal suppression in gender diverse youth has been specifically identified as an area in need of continued study (Chen et al., 2020). While GnRH analogs have been shown to be safe when used for the treatment of precocious puberty, there are concerns delaying exposure to sex hormones (endogenous or exogenous) at a time of peak bone mineralization may lead to decreased bone mineral density. The potential decrease in bone mineral density as well as the clinical significance of any decrease requires continued study (Klink, Caris et al., 2015; Lee, Finlayson et al.,

2020; Schagen et al., 2020). The potential negative psychosocial implications of not initiating puberty with peers may place additional stress on gender diverse youth, although this has not been explicitly studied. When considering the timing of initiation of gender-affirming hormones, providers should compare the potential physical and psychological benefits and risks of starting treatment with the potential risks and benefits of delaying treatment. This process can also help identify compelling factors that may warrant an individualized approach.

Studies carried out with trans masculine youth have demonstrated chest dysphoria is associated with higher rates of anxiety, depression, and distress and can lead to functional limitations, such as avoiding exercising or bathing (Mehring et al., 2021; Olson-Kennedy, Warus et al., 2018; Sood et al., 2021). Testosterone unfortunately does little to alleviate this distress, although chest masculinization is an option for some individuals to address this distress long-term. Studies with youth who sought chest masculinization surgery to alleviate chest dysphoria demonstrated good surgical outcomes, satisfaction with results, and minimal regret during the study monitoring period (Marinkovic & Newfield, 2017; Olson-Kennedy, Warus et al., 2018). Chest masculinization surgery can be considered in minors when clinically and developmentally appropriate as determined by a multidisciplinary team experienced in adolescent and gender development (see relevant statements in this chapter). The duration or current use of testosterone therapy should not preclude surgery if otherwise indicated. The needs of some TGD youth may be met by chest masculinization surgery alone. Breast augmentation may be needed by trans feminine youth, although there is less data about this procedure in youth, possibly due to fewer individuals requesting this procedure (Boskey et al., 2019; James, 2016). GAHT, specifically estrogen, can help with development of breast tissue, and it is recommended youth have a minimum of 12 months of hormone therapy, or longer as is surgically indicated, prior to breast augmentation unless hormone therapy is not clinically indicated or is medically contraindicated.

Data are limited on the optimal timing for initiating other gender-affirming surgical treatments in adolescents. This is partly due to the limited access to these treatments, which varies in different geographical locations (Mahfouda et al., 2019). Data indicate rates of gender-affirming surgeries have increased since 2000, and there has been an increase in the number of TGD youth seeking vaginoplasty (Mahfouda et al., 2019; Milrod & Karasic, 2017). A 2017 study of 20 WPATH-affiliated surgeons in the US reported slightly more than half had performed vaginoplasty in minors (Milrod & Karasic, 2017). Limited data are available on the outcomes for youth undergoing vaginoplasty. Small studies have reported improved psychosocial functioning and decreased gender dysphoria in adolescents who have undergone vaginoplasty (Becker et al., 2018; Cohen-Kettenis & van Goozen, 1997; Smith et al., 2001). While the sample sizes are small, these studies suggest there may be a benefit for some adolescents to having these procedures performed before the age of 18. Factors that may support pursuing these procedures for youth under 18 years of age include the increased availability of support from family members, greater ease of managing postoperative care prior to transitioning to tasks of early adulthood (e.g., entering university or the workforce), and safety concerns in public spaces (i.e., to reduce transphobic violence) (Boskey et al., 2018; Boskey et al., 2019; Mahfouda et al., 2019). Given the complexity and irreversibility of these procedures, an assessment of the adolescent's ability to adhere to post-surgical care recommendations and to comprehend the long-term impacts of these procedures on reproductive and sexual function is crucial (Boskey et al., 2019). Given the complexity of phalloplasty, and current high rates of complications in comparison to other gender-affirming surgical treatments, it is not recommended this surgery be considered in youth under 18 at this time (see Chapter 13—Surgery and Postoperative Care).

Additional key factors that should be taken into consideration when discussing the timing of interventions with youth and families are addressed in detail in statements 6.12a-f. For a summary of the criteria/recommendations for medically necessary gender-affirming medical treatment in adolescents, see Appendix D.

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EXHIBIT 6
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CARLA SOARES, CSR

ORIGINAL ARTICLE

Consensus Parameter: Research Methodologies to Evaluate Neurodevelopmental Effects of Pubertal Suppression in Transgender Youth

Diane Chen,^{1-4,*†} John F. Strang,^{5-9,†} Victoria D. Kolbuck,¹ Stephen M. Rosenthal,¹⁰ Kim Wallen,¹¹ Deborah P. Waber,^{12,13} Laurence Steinberg,¹⁴ Cheryl L. Sisk,¹⁵ Judith Ross,^{16,17} Tomas Paus,¹⁸⁻²⁰ Sven C. Mueller,^{21,22} Margaret M. McCarthy,²³ Paul E. Micevych,²⁴ Carol L. Martin,²⁵ Baudewijntje P.C. Kreukels,²⁶ Lauren Kenworthy,⁵⁻⁹ Megan M. Herting,^{27,28} Agneta Herlitz,²⁹ Ira R.J. Hebold Haraldsen,³⁰ Ronald Dahl,³¹ Eveline A. Crone,³² Gordon J. Chelune,³³ Sarah M. Burke,³² Sheri A. Berenbaum,^{34,35} Adriene M. Beltz,³⁶ Julie Bakker,³⁷ Lise Eliot,³⁸ Eric Vilain,³⁹⁻⁴¹ Gregory L. Wallace,⁴² Eric E. Nelson,^{43,44} and Robert Garofalo^{1,4}

¹Potocsnak Family Division of Adolescent and Young Adult Medicine, Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, Illinois, USA.

²Pritzker Department of Psychiatry and Behavioral Health, Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, Illinois, USA.

Departments of ³Psychiatry & Behavioral Sciences and ⁴Pediatrics, Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA.

⁵Division of Neuropsychology, Children's National Medical Center, Washington, District of Columbia, USA.

⁶Center for Neuroscience, Children's Research Institute, Children's National Medical Center, Washington, District of Columbia, USA.

Departments of ⁷Pediatrics, ⁸Neurology, and ⁹Psychiatry, George Washington University School of Medicine, Washington, District of Columbia, USA.

¹⁰Division of Endocrinology, Benioff Children's Hospital, University of California San Francisco, San Francisco, California, USA.

¹¹Department of Psychology, Yerkes National Primate Research Center, Emory University, Atlanta, Georgia, USA.

¹²Department of Psychiatry, Boston Children's Hospital, Boston, Massachusetts, USA.

¹³Department of Psychiatry, Harvard Medical School, Boston, Massachusetts, USA.

¹⁴Department of Psychology, Temple University, Philadelphia, Pennsylvania, USA.

¹⁵Department of Psychology, Michigan State University, East Lansing, Michigan, USA.

¹⁶Nemours duPont Hospital for Children, Wilmington, Delaware, USA.

¹⁷Department of Pediatrics, Thomas Jefferson University, Philadelphia, Pennsylvania, USA.

¹⁸Bloorview Research Institute, Holland Bloorview Kids Rehabilitation Hospital, Toronto, Ontario, Canada.

Departments of ¹⁹Psychology and ²⁰Psychiatry, University of Toronto, Toronto, Ontario, Canada.

²¹Department of Experimental Clinical and Health Psychology, Ghent University, Ghent, Belgium.

²²Department of Personality, Psychological Assessment and Treatment, University of Deusto, Bilbao, Spain.

²³Program in Neuroscience, Department of Pharmacology, University of Maryland School of Medicine, Baltimore, Maryland, USA

²⁴David Geffen School of Medicine at UCLA, Los Angeles, California, USA.

²⁵School of Social and Family Dynamics, Arizona State University, Tempe, Arizona, USA.

²⁶Amsterdam UMC, Location VUmc, Department of Medical Psychology and Center of Expertise on Gender Dysphoria, Amsterdam, The Netherlands.

Departments of ²⁷Preventive Medicine and ²⁸Pediatrics, University of Southern California, Los Angeles, California, USA.

²⁹Section of Psychology, Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden.

³⁰Centre for Cognitive Health in Brain Disease, Oslo University Hospital, Oslo, Norway.

³¹School of Public Health, University of California, Berkeley, Berkeley, California, USA.

³²Department of Developmental and Educational Psychology, Brain and Development Research Center, Leiden University, Leiden, The Netherlands.

³³Department of Neurology, University of Utah School of Medicine, Salt Lake City, Utah, USA.

Departments of ³⁴Psychology and ³⁵Pediatrics, The Pennsylvania State University, University Park, Pennsylvania, USA.

³⁶Department of Psychology, University of Michigan, Ann Arbor, Michigan, USA.

³⁷GIGA Neurosciences, Liège University, Liège, Belgium.

³⁸Department of Neuroscience, Rosalind Franklin University of Medicine & Science, Chicago, Illinois, USA.

³⁹Center for Genetic Medicine Research, Children's National Medical Center, Washington, District of Columbia, USA.

⁴⁰Department of Genomics and Precision Medicine, George Washington University, Washington, District of Columbia, USA.

⁴¹Epigenetics, Data, & Politics at Centre National de la Recherche Scientifique, Paris, France.

⁴²Department of Speech, Language, and Hearing Science, George Washington University, Washington, District of Columbia, USA.

⁴³Center for Biobehavioral Health, The Research Institute, Nationwide Children's Hospital, Columbus, Ohio, USA.

⁴⁴Department of Pediatrics, The Ohio State University College of Medicine, Columbus, Ohio, USA.

[†]These two authors are co-first authors.

*Address correspondence to: Diane Chen, PhD, Potocsnak Family Division of Adolescent and Young Adult Medicine, Ann & Robert H. Lurie Children's Hospital of Chicago, 225 East Chicago Avenue, Box 161B, Chicago, IL 60611-2605, USA, E-mail: dichen@luriechildrens.org

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Abstract

Purpose: Pubertal suppression is standard of care for early pubertal transgender youth to prevent the development of undesired and distressing secondary sex characteristics incongruent with gender identity. Preliminary evidence suggests pubertal suppression improves mental health functioning. Given the widespread changes in brain and cognition that occur during puberty, a critical question is whether this treatment impacts neurodevelopment.

Methods: A Delphi consensus procedure engaged 24 international experts in neurodevelopment, gender development, puberty/adolescence, neuroendocrinology, and statistics/psychometrics to identify priority research methodologies to address the empirical question: is pubertal suppression treatment associated with real-world neurocognitive sequelae? Recommended study approaches reaching 80% consensus were included in the consensus parameter.

Results: The Delphi procedure identified 160 initial expert recommendations, 44 of which ultimately achieved consensus. Consensus study design elements include the following: a minimum of three measurement time points, pubertal staging at baseline, statistical modeling of sex in analyses, use of analytic approaches that account for heterogeneity, and use of multiple comparison groups to minimize the limitations of any one group. Consensus study comparison groups include untreated transgender youth matched on pubertal stage, cisgender (i.e., gender congruent) youth matched on pubertal stage, and an independent sample from a large-scale youth development database. The consensus domains for assessment includes: mental health, executive function/cognitive control, and social awareness/functioning.

Conclusion: An international interdisciplinary team of experts achieved consensus around primary methods and domains for assessing neurodevelopmental effects (i.e., benefits and/or difficulties) of pubertal suppression treatment in transgender youth.

Keywords: expert consensus; Delphi; puberty blockers; GnRHa; transgender; adolescents

Introduction

Standards of care established by the World Professional Association for Transgender Health¹ and the Endocrine Society² recommend pubertal suppression for gender dysphoric transgender youth during early puberty (i.e., Tanner stages 2–3).^{3,4} Pubertal suppression is achieved through administration of gonadotropin-releasing hormone agonists (GnRHa). When administered in early puberty, GnRHa suppress endogenous sex hormone production and prevent the development of undesired and irreversible secondary sex characteristics, thereby minimizing distress associated with pubertal development incongruent with gender identity.⁵ For youth who later decide to initiate estrogen/testosterone (gender-affirming hormones [GAH]) treatment to induce development of the desired secondary sex characteristics, pubertal suppression may minimize the need for more invasive, surgical interventions (e.g., facial and chest surgery). For youth who decide not to pursue GAH treatment, discontinuing GnRHa will reactivate the hypothalamic-pituitary-gonadal axis and endogenous puberty will resume.⁶

Three longitudinal studies have examined psychosocial outcomes in GnRHa-treated transgender youth;

two (conducted by the same research group) followed a single cohort over time, immediately before initiating GAH ($N=70$)⁷ and later in early adulthood after surgery for gender affirmation ($N=55$).⁸ The third study compared groups of GnRHa-treated ($n=35$) and untreated ($n=36$) youth longitudinally.⁹ Findings across these studies include significant reductions in depressive symptoms and improvement in overall psychosocial functioning in GnRHa-treated transgender youth. A fourth cross-sectional study compared adolescents diagnosed with gender dysphoria (GD), who were treated with GnRHa and close to starting GAH treatment ($n=178$), adolescents newly referred for GD evaluation ($n=272$), and cisgender adolescents recruited from the general population ($n=651$) on self-reported internalizing/externalizing problems, self-harm/suicidality, and peer relationships.¹⁰ Before medical treatment, clinic-referred adolescents reported more internalizing problems and self-harm/suicidality and poorer peer relationships compared to age-equivalent peers. GnRHa-treated transgender adolescents had fewer emotional and behavioral problems than clinic-referred, untreated adolescents and had comparable or better psychosocial functioning than same-age

cisgender peers. In addition to studies of youth, the 2015 U.S. Transgender Survey included questions about past gender-affirming medical treatment, including pubertal suppression. These questions were asked retrospectively and linked to reported current and lifetime mental health.¹¹ Individuals who received pubertal suppression treatment ($n = 89$), when compared to those who wanted pubertal suppression, but did not receive it ($n = 3405$), had lower odds of endorsing lifetime suicidal ideation on the survey. Given these five studies and the presumed reversibility of GnRHa treatment, pubertal suppression is increasingly offered to early pubertal transgender youth. It is important to note that there has been only one longitudinal report of adult outcomes,⁸ and questions remain regarding the potential for both positive *and* disruptive effects of pubertal suppression on neurodevelopment.¹²⁻¹⁴

The pubertal and adolescent period is associated with profound neurodevelopment, including trajectories of increasing capacities for abstraction and logical thinking,¹⁵ integrative thinking (e.g., consideration of multiple perspectives),^{16,17} and social thinking and competence.^{18,19} During this period, there is a developmental shift toward greater exploration and novelty seeking,^{20,21} salience of peer perspectives and interactions,²² and accelerated development of passions/interests and identities.²³ These developments lay the groundwork for adult functioning.^{18,24} At the level of the brain, several primary neurodevelopmental processes unfold during adolescence, including myelin development²⁵ and changes in neural connectivity²⁶; synaptic pruning²⁷ and gray matter maturation^{28,29}; changes in functional connectivity³⁰; and maturation of the prefrontal cortex³¹ and the “social brain” network.¹⁹ Adolescent neurodevelopmental processes underlie mental health risks, resilience, and outcomes.^{32,33}

Considerable research has addressed the effects of puberty-related hormones on neurodevelopment, including hormone manipulation studies in nonhuman animals and observational studies in humans. Animal studies demonstrate pubertal hormones exert broad neuronal influence, including effects on neurogenesis, differentiation, apoptosis, dendritic branching, spine density, and regional gray and white matter volumes.^{30,34} Androgen and estrogen receptors are found in high density within the hypothalamus and amygdala, and are also present in the hippocampus, midbrain, cerebellum, and cerebral cortex of the rodent and monkey.³⁵⁻³⁷ This widespread receptor distribution in rodents may explain the diverse effects of pubertal hor-

mones on both reproductive and nonreproductive behaviors, including anxiety, scent-marking, and food guarding.³⁴ In human studies, pubertal progression has been linked to developmental changes in reward,³⁸ social,³⁹ and emotional processing⁴⁰ as well as cognitive/emotional control.⁴¹ However, consensus regarding pubertal impacts at the neural level—such as puberty-associated changes observed in magnetic resonance imaging (MRI) measures—has been more difficult to achieve.⁴² Distinct puberty-related neurodevelopmental trajectories have been differentiated by sex.⁴³

The combination of animal neurobehavioral research and human behavior studies supports the notion that puberty may be a *sensitive* period for brain organization:⁴⁴⁻⁴⁶ that is, a limited phase when developing neural connections are uniquely shaped by hormonal and experiential factors, with potentially lifelong consequences for cognitive and emotional health. Studies have linked early life adversity to early puberty onset⁴⁷ and early puberty onset to poorer mental health.⁴⁸ There is also some evidence to suggest that delayed puberty onset predicts slightly poorer adult functional outcomes.⁴⁹ Taken as a whole, the existing knowledge about puberty and the brain raises the possibility that suppressing sex hormone production during this period could alter neurodevelopment in complex ways—not all of which may be beneficial.

Two small studies have assessed impacts of pubertal suppression on neural and cognitive functioning in peripubertal transgender youth. Staphorsius et al. compared brain and behavioral responses of GnRHa-treated (8 transgender girls [birth-assigned male] and 12 transgender boys [birth-assigned female]) and untreated transgender youth (10 of each sex) during an executive function task.⁵⁰ No group differences were found in task load-related brain activation; GnRHa-treated transgender girls demonstrated poorer performance compared with untreated transgender boys and cisgender controls. Schneider et al. evaluated a single pubertal transgender girl undergoing GnRHa with MRI scans of white matter and cognitive assessments at baseline (before GnRHa initiation) and at 22 and 28 months of pubertal suppression treatment.⁵¹ During follow-up, white matter fractional anisotropy (i.e., a measure of axonal diameter, fiber coherence, and myelination) did not increase in the manner otherwise expected during puberty. By 22 months of pubertal suppression treatment, working memory scores dropped by more than half a standard deviation.

Larger-scale, longitudinal studies are required to understand possible neurodevelopmental impacts of pubertal suppression over time in transgender youth. Suppressing puberty may reduce dysphoria and diminish risks for poor mental health in this population, thereby exerting neuroprotective effects. If pubertal suppression disrupts aspects of neurodevelopment, it is possible these effects are temporary, with youth “catching up” developmentally after transitioning to GAH treatment or discontinuing GnRH α . However, pubertal suppression may prevent key aspects of development during a sensitive period of brain organization. Neurodevelopmental impacts might emerge over time, akin to the “late effects” cognitive findings associated with certain oncology treatments.⁵² In sum, GnRH α treatment might produce a myriad of *varied* impacts, both positive and disruptive.

The goal of this study was to develop a framework in which these questions could be asked, and ultimately answered. We identify priority research methodologies that can be used to address the empirical question of how pubertal suppression in transgender youth may affect neurodevelopment and real-world functioning. Given the complexity of neural development during the pubertal period and the novelty of developmental research with transgender youth, this study employed a Delphi consensus method to leverage international expertise in neurodevelopment, gender development, puberty/adolescence, neuroendocrinology, and statistics/psychometrics. By engaging a community of experts in an iterative consensus-building procedure, this study aimed to advance thinking about efficacious designs by moving beyond individual research efforts and single-discipline approaches.

Methods

The Delphi procedure is a reliable iterative research method for establishing expert agreement,^{53,54} and has been used extensively to address health-related questions, particularly in emerging fields of clinical care.⁵⁵⁻⁵⁷ In the first round of a two-round Delphi procedure, a key question is presented to experts, who remain anonymous to one another throughout the Delphi process. Each expert provides responses/solutions to the question, which are then combined and organized by the study team. In the Delphi round two, experts rate each proposed statement/solution according to the level of agreement. Responses reaching the *a priori* consensus criterion are included as consensus statements. Given its anonymous iterative

nature, the Delphi method avoids problems of typical expert work groups (e.g., adhering to the perspectives of more senior workgroup experts, inflexibly defending ideas) and allows for interaction among larger groups of experts from diverse locations and disciplines through asynchronous communication.⁵⁸⁻⁶⁰

We employed a two-round Delphi procedure to obtain expert consensus regarding the most efficacious research design elements to address the following question: *What, if any, real-world impact does pubertal suppression have on transgender children's cognitive and neural development?* International experts in relevant research fields were identified and invited as follows:

1. An independent advisory panel consisting of five experts across key disciplines (see Acknowledgments section) was formed to identify international experts who, based on knowledge and experience, could best propose a research design to assess neurodevelopmental impacts of pubertal suppression in transgender youth.
2. Thirty-two recommended experts were vetted for their expertise; all met required criteria (i.e., a minimum of 10 first-author publications in relevant fields).
3. These experts were invited to participate in the Delphi procedure and were informed they would be invited to consider being a co-author of the resulting article. Twenty-eight experts responded: 20 agreed to participate, 4 declined due to lack of time, and 4 declined due to self-reported lack of expertise in this research area. Snowball sampling identified an additional 16 recommended experts, who were vetted (as described above) for their experience. Eight met criteria and were invited. Five of these experts participated, yielding a total of 25 experts agreeing to participate, 24 of whom completed the Delphi process. See Table 1 for academic institution locations and areas of expertise represented in the expert panel.

The Ann & Robert H. Lurie Children's Hospital of Chicago Institutional Review Board found that an expert Delphi consensus initiative did not require informed consent since the experts were direct partners in the research product. The first round of Delphi survey was distributed through the REDCap online survey platform and presented an overview of the research question with the following prompt for

Table 1. Institutional Representation and Self-Reported Areas of Expertise

	<i>n</i>
Location of academic institution	
United States	16
The Netherlands	3
Belgium	2
Canada	1
Norway	1
Sweden	1
Self-endorsed areas of expertise ^a	
Brain development	13
Adolescent development	12
Neuroendocrinology	11
Neuroimaging	11
Neuropsychology	8
Cognitive development	7
Developmental assessment	4
Expert in GnRH _a	2
Other (write in)	4
Developmental social neuroscience	1
Transgender health	1
Genetics of sex chromosomes	1
Gender development	1

^aExperts endorsed as many areas of expertise as applicable. GnRH_a, gonadotropin-releasing hormone agonists.

respondents: “What methods and tools should we use to identify clinically meaningful neurodevelopmental impacts of pubertal suppression? What type of longitudinal design and follow-ups are both practical and appropriate? What comparison groups might we consider?” This initial process yielded 131 distinct research design considerations; multiple descriptions of the same concept were collapsed into single statements. In the second Delphi round, each first-round research design consideration was presented back to the experts and rated as follows: a priority idea/approach or not a priority idea/approach. Experts could also select, “cannot rate due to lack of expertise.” The first Delphi round also yielded lists of potential comparison groups and assessment domains (29 items). In the second Delphi round, participants were asked to rank order these items according to priority. For the priority rankings of comparison groups, the top-rated comparison group by each expert was given a value of 2 and the second rated comparison group was given a value of 1. A mean was calculated for each comparison group option based on these values and these mean scores were used to identify the overall priority rankings. For the list of priority domains to measure, a parallel approach was taken with the top 6 domains ranked by each expert.

All experts participated in the second Delphi round. Twenty-two of the Delphi experts participated in the construction of the resulting article and are co-authors

listed in reverse alphabetical order by last name (authors 5–26). The Results section contains the exact statements endorsed as a “priority” approach by 80% or more of the Delphi panel.

Results

Four of the 131 individually presented statements were excluded from analyses because fewer than 15 experts rated them. Of the remaining 127 statements, 44 met the 80% or higher criterion for consensus and inclusion (see Table 2 for endorsement rates by statement). The average endorsement rate of included statements was 89.4%.

Consensus parameter

Study design considerations. A multicenter design with more than a single clinic will be necessary to recruit a sufficient sample size, as the effect size will likely be small. Meaningful effect sizes must be determined to ensure sufficient recruitment to power multiple expected comparisons accounting for attrition in a longitudinal design. Three time points of measurement are the absolute minimum. It will be necessary to manage the effects of repeated testing with a particular focus on minimizing the practice effects of a longitudinal design with multiple time points. For cognitive assessments, standardized batteries should be employed as: (1) there may be a larger database of norms available that the cohort could be compared to, in addition to a local comparison (control) group(s), (2) general composite scores within test batteries tend to provide more reliable and stable scores than individual tests, and (3) tasks within a category may be swapped in case of worries for learning effects. In any study of cognitive change based on serial assessments, reliability of measures is paramount (the consensus in the field is that tests should have a minimum test-retest reliability of >0.70). It may be pragmatic to use measures and methods from large representative studies, such as the Adolescent Brain Cognitive Development (ABCD) Study.

All processes being studied (e.g., gender identity, mental health, neural structure, and function) display considerable heterogeneity, and methods that fail to capture this will provide distorted findings and lead to biased clinical recommendations. Analyses based on group means (e.g., regression or ANOVAs) are unlikely to generalize to all individuals being treated. Therefore, it is necessary to collect enough data per person to characterize individual trajectories of change over time.

Table 2. Consensus Priority Recommendations Ordered by Consensus Ratings Within Categories

Study design considerations		
1	It would be helpful to follow these youth through and beyond initiation of cross-sex hormone treatment. Some aspects of human adolescent brain development are more related to pubertal hormone status than age <i>per se</i> , and to the extent that pubertal suppression may also put some features of brain development on hold; it would be good to know whether these features “catch up” once cross-sex hormone treatment has begun or whether a sensitive window for hormone-dependent brain development has closed.	22/22
2	Follow cohort after GnRHa treatment ends—collect data after the youth transition to GAH (when they complete their GnRHa treatment).	22/23
3	Any neurocognitive effect of GnRHa pubertal suppression may be complicated by the psychosocial and affective aspects of the transgender experience. This means that you would have to include multivariate models of both cognitive and psychosocial functioning.	22/23
4	Need to determine meaningful effect sizes and ensure sufficient statistical power for multiple expected comparisons with attrition.	21/22
5	Across the course of the study, three assessment points is the absolute minimum.	20/21
6	Need to use a multicenter design (not just one clinic).	21/23
7	Effects of GnRHa may not appear for several years. Any difference in brain structure due to GnRHa is likely to be seen over time (long term), rather than immediately.	20/22
8	Social and affective learning process may be affected by pausing puberty. These social and affective learning processes might cause subtle short-term differences that could ultimately cause clinically impactful and meaningful longer-term effects.	17/19
9	Of particular interest would be to also monitor the impact of hormonal therapy. One could then ask, “Does the trajectory change in response to cross-sex hormonal therapy or do they stay on the same trajectory as when they were on GnRHa?”	16/18
10	Assess target and comparison groups before puberty.	20/23
11	Need to manage the effects of repeated testing (i.e., minimize the practice effect of a longitudinal design with multiple time points).	19/22
12	The effect size will likely be small—therefore, you would need a large sample size.	19/23
13	The research design will need to account for the differences between youth who are assumed male versus assumed female as biological sex is differentially related to rate and pattern of cognitive development, connectome distinctiveness, and timing of peak brain volume.	19/23
14	All processes being studied (e.g., gender identity, mental health, and neural structure and function) display huge amounts of heterogeneity, and research methods that fail to capture this will provide distorted findings and lead to biased clinical recommendations. Analyses based on mean levels of these processes are unlikely to generalize to all individuals being treated (e.g., regressions or ANOVAs that compare groups with a slew of covariates). It is, therefore, necessary that enough data are collected per person to capture personalized trajectories of change across time. And the data need to be modeled in ways that reflect the heterogeneity of individual characteristics and trajectories.	18/22
Comparison groups and recruitment		
15	At least one control group should be cisgender participants as this area of research (i.e., hormones and the adolescent brain) is still rather new and more data are needed on all youth during this stage.	20/22
16	Critical to match the groups carefully to allow for evaluation of the effects of repeated testing (practice effects).	20/22
17	Comparison groups should be matched for pubertal stage.	19/21
18	Recruit all gender dysphoric youth across the pubertal age range, including those who are treated with GnRHa and those who are not.	18/21
19	This is not dissimilar from issues of discerning differences in cognitive trajectories in normal aging versus neurodegenerative disorders. The basic question involves cognitive growth curves among cisgender and transgender children overtime. There have been large-scale large-sample studies that have produced trajectories of brain development during the pre-pubertal, pubertal, and adolescent periods that could be treated like a “brain growth curve.”	15/18
20	Need more than one comparison group to minimize the limitations of any one comparison group (no single comparison group is ideal).	18/22
Pubertal staging/measurement		
21	Measure gonadal hormone levels.	23/23
22	Collect information on menstrual cycle and contraceptive use for female adolescents involved in the study.	23/23
23	Measure Tanner staging (i.e., secondary sex characteristics).	21/23
24	Measure height/weight.	18/22
Domains to measure		
25	Use white matter microstructure scans (diffusion tensor imaging)—and use a longitudinal imaging pipeline (which exists) for processing these data with scientific rigor.	15/15
26	A pragmatic methodological implication is to consider: (1) not only relying solely on measures of performance and behavior but also measures of learning and motivation, and (2) not only relying solely on measures of cognitive capacities but also on social, affective, and value-based learning processes.	19/20
27	If MRI is included, consider imaging approaches focused on the following domains: social-emotional processing, executive functioning, risk and reward processing, and self-concept.	20/22
28	Studies in laboratory rodents show that testosterone, acting during puberty, programs the ability to adapt behavior as a function of social experience—therefore, include instruments that evaluate social proficiency.	19/21
29	Use diffusion tensor imaging to analyze white matter at the microstructural level.	17/19

(continued)

Table 2. (Continued)

Study design considerations		
30	Studies in laboratory rodents show that ovarian hormones, acting during puberty, program cognitive flexibility by exerting long-lasting effects on excitatory-inhibitory balance in prefrontal cortex—so include instruments that evaluate behavioral flexibility.	18/21
31	Examine white matter development, which is important for processing speed.	17/20
32	Important to measure emotional functioning because it is bidirectionally related to executive functioning.	16/19
33	Look at white matter characteristics since they seem to develop during puberty under the influence of sex hormones.	15/18
34	One cannot study everything or study everything well. It will be critical to identify the priorities in such a study, as there is a danger of doing too much here. Consider the outcomes that matter most and the hypothesized mediating mechanisms. Focus on the outcomes of interest.	19/23
35	There is no clear evidence that progressing through puberty later than peers is associated with delayed maturation of abstract reasoning, executive function, and social capacities.	18/22
36	Use structural MRI (T1/T2)—and use a longitudinal imaging pipeline (which exists)—for processing these data with scientific rigor.	13/16
37	There is an emerging shift in thinking about the increase in reward sensitivity and sensation-seeking during puberty as related to social value learning. Dopamine release is not primarily a “reward” signal, but rather a learning signal (e.g., prediction error signal)—the natural increased salience of social learning (status, prestige, being admired, respected, liked, etc.) These pubertal changes may have small effects on immediate behavior, yet that could contribute to changes in patterns of behavior over time, which could lead to large individual differences in developmental trajectories for people, such as if they had blocked puberty.	13/16
Measurement approaches		
38	In any study of cognitive change based on serial assessments, reliability of the measure is paramount. The consensus in the field is that tests should have a minimum test-retest reliability of > 0.70.	20/20
39	Behavioral measurements should include standardized measures appropriate for repeated assessment with high test-retest reliability.	21/22
40	Match acquisition parameters between imaging sites.	17/18
41	Consider implementing measures and methods from large representative protocols, such as the ABCD.	17/18
42	Neuroimaging should parallel the behavioral study—neural measures should be linked to neurocognitive and behavioral measures.	19/22
43	For cognitive assessment, use a standardized battery for two reasons: (1) there might be a larger database of norms available that the cohort could be compared to, in addition to the likely to be small comparison (“control”) group, and (2) tasks within a category may be swapped in case of worries for learning effects.	18/21
44	Use “test batteries” that provide a general composite score as well as specific composites. By virtue of being composites, scores tend to be more reliable and stable than individual test scores.	17/20

The proportion represents the number of experts endorsing an item as a “priority” out of the total number of experts who rated the item as “priority” or “not priority.” The denominator represents the number of experts rating an item as a “priority” or “not priority” (as opposed to “cannot rate due to lack of expertise” or skipping the item).

ABCD, Adolescent Brain Cognitive Development Study; GAH, gender-affirming hormones; MRI, magnetic resonance imaging.

Any GnRHa-induced neurocognitive effect may be complicated by psychosocial and affective aspects of the transgender experience. Therefore, multivariate models of both cognitive and psychosocial functioning should be included. Accounting for differences between birth-assigned male youth versus birth-assigned female youth is important, as sex is differentially related to the rate and pattern of cognitive development, connectome distinctiveness, and timing of peak brain volume. Assessments should begin before puberty in both treatment and comparison groups. The effects of pubertal suppression may not appear for several years. Any GnRHa-related difference in brain structure is likely to be observed over the long term, rather than immediately. Shifts in social and affective learning processes might cause subtle short-term differences that could ultimately result in clinically impactful longer-term effects. Therefore, studies should follow GnRHa-treated youth over time, including the time period after GnRHa treatment ends and/or when GAH com-

mence. Some aspects of human adolescent brain development are more related to pubertal hormone status than age *per se*. To the extent that pubertal suppression may also put some features of brain development on hold, it is critical to know whether these features “catch up” (either once GAH treatment is initiated or if the adolescent elects to stop GnRHa and resume endogenous puberty), or whether a sensitive window for hormone-dependent brain development has closed. One way to measure this is to assess whether neurodevelopment shifts in response to initiating GAH following pubertal suppression: Do GnRHa-treated youth stay on the same neurodevelopmental trajectory as when puberty was suspended or does this trajectory change?

Comparison groups. To assess neurodevelopmental trajectories associated with GnRHa treatment, more than one comparison group is needed to minimize the limitations of any one comparison group. No single comparison group is ideal for this study question.

CONSENSUS PARAMETER

A rank order of possible comparison groups is provided in Table 3. Groups should also be well matched, given the effects of a repeated testing design (e.g., practice effects). Matching for pubertal/developmental stage will be critical, including Tanner staging, gonadal hormone levels, height and weight, and, among youth assigned female at birth, menstrual cycle and contraceptive use. A primary comparison should be between GnRHa-treated transgender youth and untreated transgender youth, but it will also be important to include comparisons with cisgender samples as research on hormones and the adolescent brain is still novel and emerging and more data are needed on all youth during this developmental period. One way to accomplish the latter is to employ existing large-scale databases from studies of brain development during the pre-pubertal, pubertal, and later-adolescent periods, treating them as brain growth curves for comparisons. This approach is similar to the differentiation of cognitive trajectories in normal aging versus neurodegenerative disorders. The basic research question involves comparing cognitive growth curves over time.

Domains to assess. It will be critical to prioritize assessment domains based on hypothesized mediating mechanisms, with the most important domains to

measure as follows: mental/behavioral health, pubertal stage, executive function/control, gender identity/dysphoria, and social awareness/functioning. See Table 4 for a complete list of ranked domains. Although we (the Delphi experts) identify executive function/control and social functioning as key domains to measure, it is important to note that there is no clear evidence that progressing through puberty later than peers is associated with delayed maturation of abstract reasoning, executive function, and social capacities. Executive function and emotional functioning are bidirectionally related, and for this reason, the two should be integrated in models/analyses. In addition, cognitive/behavioral flexibility, a component of executive functioning, should be measured, given that studies in rodents show ovarian hormones, acting during puberty, program cognitive flexibility by exerting long-lasting effects on excitatory-inhibitory balance in the prefrontal cortex.⁶¹ Studies in rodents also demonstrate that testosterone, acting during puberty, programs the ability to adapt behavior as a function of social experience.³⁴ Measurement approaches should extend beyond cognitive capacities alone, embedding social, affective, and value-based learning processes. There is an emerging shift in thinking about increases in reward sensitivity

Table 3. Rank Order of Priority Comparison Groups

Rank order of priority	Comparison group
1	Transgender youth who do not take GnRHa matched on pubertal status at the beginning of the study
2	Cisgender typically developing adolescents matched on pubertal status at the beginning of the study
3	Use a standardized battery and/or a large existing database of norms to compare to (in addition to a smaller comparison group)
4	Transgender youth who commence GnRHa treatment earlier compared to later in puberty
5	Siblings of transgender youth enrolling in the study (to serve as genetic and shared environmental controls)
6	Mixed clinical group of adolescents presenting for MH assessment/treatment in an outpatient setting matched on pubertal status
7 ^a	Peers with mood disorders (to control for the overoccurrence of mental health distress in transgender youth) matched on pubertal status
7 ^a	Youth with precocious puberty who are given GnRHa to delay puberty

This priority sequence was based on participants' top 2 ranked comparison groups, where the top rated comparison group was given a value of 2 and the second rated comparison group was given a value of 1. A mean score was derived for each comparison group based on participants' ratings and ordered from highest to lowest.

^aComparison groups received the same mean score in the ranking.

Table 4. Rank Order of Priority Domains of Characterization and Assessment

Rank order of priority	Domains of characterization and assessment
1	Mental/behavioral health (including suicidality/hopelessness)
2	Pubertal stage/development (Tanner staging/hormone levels)
3	Executive function/control and attention
4	Gender identity/dysphoria
5	Social awareness/functioning
6	Quality of life
7	Brain/functional connectivity
8	Brain structure/volume
9	Emotional awareness/functioning
10	Physical health symptoms and outcomes (especially in adulthood)
11	Adaptive/independence skills
12	General cognitive functioning (IQ)
13	Sensation seeking, risk taking, reward sensitivity, and motivation
14	Genetics (i.e., possible impacts of GnRHa on DNA and RNA expression)
15	Academic functioning
16	Processing speed
17	Memory systems

This priority sequence was based on participants' top 6 ranked domains to measure, where the top rated domain was given a value of 6 and the second rated comparison group was given a value of 5, and so on. A mean score was derived for each domain based on participants' ratings and ordered from highest to lowest.

and sensation-seeking during puberty as related to social-value learning.¹⁸ Dopamine release is not primarily a “reward” signal, but rather a learning signal (e.g., prediction error signal)—the natural increased salience of social learning (e.g., status and prestige, being admired, respected, and liked). The effects of suspending puberty on the salience of social-value learning might produce small near-term effects, but could contribute to changes in patterns of behavior over time, leading to large individual differences in developmental trajectories for GnRH_a-treated youth.

If neuroimaging is included, imaging approaches should focus on the following domains: social/emotional processing, executive functioning, risk and reward processing, and self-concept. Neuroimaging should parallel behavioral assessment. Neural measures should be linked to neurocognitive and behavioral measures. Acquisition parameters should be matched between imaging sites. Investigation of white matter development is important as myelination progresses during puberty, likely under the influence of sex hormones,⁶² and is related to cognitive processing speed. Both structural MRI and diffusion tensor imaging approaches should be used for white matter imaging and analyzed using a longitudinal imaging pipeline for processing these data with scientific rigor.

Discussion

Puberty suppression has become an increasingly available option for transgender youth, and its benefits have been noted, particularly in the area of mental health. However, puberty is a major developmental process and the full consequences (both beneficial and adverse) of suppressing endogenous puberty are not yet understood. The experts who participated in this procedure believe the effects of pubertal suppression warrant further study, and this Delphi consensus process develops a framework from which future research endeavors can be built.

Expert consensus emphasized a minimum of three measurement time points, inclusion of multiple comparison groups to minimize the limitations of any one group, precision pubertal staging at baseline, accounting for sex in design and analysis, and the use of designs that capture heterogeneity in processes being studied. Focus on longer-term trajectories and outcomes was emphasized, given that effects of pubertal suppression on various processes may not be evident in the near term, and responses to delayed receipt of gonadal hormones may not be comparable to initial

potentially organizing effects. Experts also highlighted that accounting for the psychosocial aspects of the transgender experience itself on development will require models that integrate both cognitive and psychosocial functioning. The highest endorsed measurement priorities were mental and behavioral health, executive function/cognitive control, and social awareness/functioning. The importance of interrelations between domains that mature during puberty/adolescence was also emphasized, including bidirectional relationships between cognitive and emotional control and links between reward sensitivity and social value learning. Regarding neuroimaging, experts stressed the importance of linking neural signatures to cognitive and behavioral measures, with attention to white matter development. Notably, while there was consensus in this approach to neuroimaging, there were divergent views as to whether a neuroimaging protocol should be prioritized in a study with limited resources. Some experts noted that insufficient work has been done on neural development during puberty in general and expending resources on an expensive neuroimaging protocol for this subset of youth may be premature, while others felt that defining underlying brain mechanisms by neuroimaging was important. Furthermore, at the final review of the article, four co-authors noted a concern with this specific Delphi consensus recommendation: “Accounting for differences between birth-assigned male youth versus birth-assigned female youth is important, as sex is differentially related to the rate and pattern of cognitive development, connectome distinctiveness, and timing of peak brain volume.” The four authors felt that instead of “peak brain volume,” a more appropriate measurement concept might be that of “structural brain metrics” (e.g., thickness and regional volumes).

Twelve different comparison groups were proposed in the first round of the Delphi and 8 of the 12 groups were rated as either first or second priority by at least 1 expert in the second Delphi round. This heterogeneity underscores the complexity of selecting comparison groups for this research and lends support to the experts’ recommendation to engage more than one comparison group. The highest rated comparison groups were untreated transgender youth matched on pubertal stage, cisgender youth matched on pubertal stage, and a sample from a large-scale quasi-normative database (e.g., from the ABCD study) used as a “brain growth curve.” These comparison groups are not without weaknesses. Untreated transgender youth may differ in their

intensity or experience of GD, level of parent support (e.g., are the parents against GnRHa treatment?), and socioeconomic status of the family and access to treatment (e.g., insurance coverage). A cisgender comparison group would lack gender-minority experience and associated stress.

Some statements approached, but did not reach consensus. For example, many experts suggested continuing assessments of transgender youth through young adulthood (mid-20s) when prefrontal development is near completion. Assessing adaptive functioning (everyday skills) over time due to the bidirectional link between executive functioning and adaptive behaviors was also often endorsed.

Not all relevant study considerations were raised by the Delphi panel. Neurodevelopmental impacts of pubertal suppression in transgender youth with neurodevelopmental differences/diagnoses (e.g., attention deficit/hyperactivity disorder and autism spectrum disorder) were not specifically addressed by the experts. Yet, evidence suggests an overoccurrence of neurodiversity characteristics (especially related to autism) among gender-referred youth.^{55,63-66} The neurodevelopmental impacts of pubertal suppression on neurodiverse gender-diverse youth might well be different than in neurotypical gender-diverse youth, given variations in neurodevelopmental trajectories observed across neurodevelopmental conditions.⁶⁷⁻⁶⁹

This study included experts from a range of relevant disciplines—a strength and also a possible limitation. The varied disciplines allowed for a broader range of ideas and perspectives, but some specialized recommendations might not have been sufficiently understood by Delphi experts from other disciplines. It is possible that some useful recommendations were lost in the process because few experts had backgrounds relevant to them. In fact, four recommendations were dropped from consideration because more than nine experts indicated they could not rate the item or skipped the item. These four items included topics related to advanced growth curve modeling, impact of GnRHa on immune system functioning, multifactorial relationships between GD and neurodevelopment, and challenges associated with using alternative forms of measures in longitudinal designs. The Delphi team included experts across the fields of neuroscience, neurodevelopment, developmental measurement, and gender development; however, most were not specialized in clinical transgender care *per se*. This reflects the dearth of transgender care clinicians/specialists with research productivity in ado-

lescent neurodevelopment. Thus, the experts could comment with authority on neurodevelopment, including gender development/dysphoria aspects of study design, but the real-world clinical care considerations may well be underdeveloped in the proposed research design. For example, the everyday lived experience of transgender youth seeking gender-affirming medical care would be unfamiliar to most neurodevelopmental researchers. After the Delphi procedure was completed, one panelist commented that pubertal hormones might play a role in organizing neurodevelopmental gender-related trajectories, including identity itself, which would be important to consider for a developmental study of gender diverse youth.

Despite these limitations, an international expert team successfully completed an iterative Delphi procedure achieving consensus around priority research design elements to study neurodevelopmental impacts of pubertal suppression in transgender youth. The resulting consensus parameter addresses broad design issues, including comparison groups, longitudinal design, neurodevelopmental targets for assessment, and measurement approaches. While it may not be possible to incorporate all consensus methodologies into a single study, this parameter may serve as a roadmap for a range of research initiatives investigating pubertal suppression treatment in transgender youth.

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Abbreviations Used

ABCD = Adolescent Brain Cognitive Development
 GAH = gender-affirming hormones
 GD = gender dysphoria
 GnRH α = gonadotropin-releasing hormone agonists
 MRI = magnetic resonance imaging

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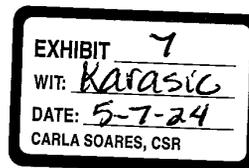
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Gender Dysphoria in Adults: An Overview and Primer for Psychiatrists

William Byne,^{1,2,*} Dan H. Karasic,³ Eli Coleman,⁴ A. Evan Eyster,⁵ Jeremy D. Kidd,⁶
Heino F.L. Meyer-Bahlburg,⁷ Richard R. Pleak,⁸ and Jack Pula⁹



Abstract

Regardless of their area of specialization, adult psychiatrists are likely to encounter gender-variant patients; however, medical school curricula and psychiatric residency training programs devote little attention to their care. This article aims to assist adult psychiatrists who are not gender specialists in the delivery of respectful, clinically competent, and culturally attuned care to gender-variant patients, including those who identify as transgender or transsexual or meet criteria for the diagnosis of Gender Dysphoria (GD) as defined by *The Diagnostic and Statistical Manual of Mental Disorders* (5th edition). The article will also be helpful for other mental health professionals. The following areas are addressed: evolution of diagnostic nosology, epidemiology, gender development, and mental health assessment, differential diagnosis, treatment, and referral for gender-affirming somatic treatments of adults with GD.

Keywords: assessment; gender dysphoria; gender transition; mental health; psychiatry; intersex; transgender

Introduction

Individuals who would likely be considered transgender today are evident throughout the historical record.¹ The historical and sociocultural conceptualizations of gender variance, and their evolution within mental health professions over the past century and a half are reviewed elsewhere.²

Nineteenth and 20th century theories of gender variance and views of appropriate treatment were pathologizing and highly stigmatizing to transgender people.² While mainstream psychiatry is now more affirming of gender variance, transgender individuals often are aware of the

history in this area and many are likely to have encountered providers who adhere to outdated stigmatizing theories and approaches to treatment.³ Today's mental health professionals should, therefore, be familiar with the history in this area as it is not unusual for gender-variant patients to have apprehensions about seeking mental healthcare or to raise questions about their providers' views and approach to treatment considering that history.

Between 1963 and 1979, over 20 university-based gender identity clinics opened in the United States.^{2,4} These clinics provided interdisciplinary care that

¹Mental Illness Research Education and Clinical Center, James J Peters VA Medical Center, Bronx, New York.

²Department of Psychiatry, Icahn School of Medicine at Mount Sinai and Center for Transgender Medicine and Surgery at Mount Sinai, New York, New York.

³Department of Psychiatry, University of California, San Francisco, San Francisco, California.

⁴Program in Human Sexuality, Department of Family Medicine and Community Health, University of Minnesota Medical School, Minneapolis, Minnesota.

⁵Departments of Psychiatry and Family Medicine, University of Vermont College of Medicine, Burlington, Vermont.

⁶Department of Psychiatry, Division on Substance Use Disorders, College of Physicians and Surgeons of Columbia University, New York, New York.

⁷Division of Gender, Sexuality, and Health, New York State Psychiatric Institute/Department of Psychiatry, College of Physicians and Surgeons of Columbia University, New York, New York.

⁸Department of Psychiatry, Division of Child and Adolescent Psychiatry, Hofstra North Shore-LIJ School of Medicine, Albert Einstein College of Medicine, Zucker Hillside Hospital, Ambulatory Care Pavilion, Glen Oaks, New York.

⁹Department of Psychiatry, Division of Gender, Sexuality and Health, College of Physicians and Surgeons of Columbia University, New York, New York.

*Address correspondence to: William Byne, MD, PhD, James J. Peters VA Medical Center, Research Bldg, Rm 5F-04B, Bronx, NY 10468, E-mail: william.byne@mssm.edu

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included psychiatrists and other mental health professionals and played an important role in the provision of medical services to transgender people and in promoting research to improve their care.^{2,4} The majority of these clinics closed following a 1981 decision of the U.S. Department of Health and Human Services (HHS) that labeled sex reassignment surgery as experimental,⁵ a decision that was overturned by HHS in 2014 in a determination that concluded that the 1981 decision was “unreasonable and contrary to contemporary science and medical standards of care.”⁶

With the closure of the academic gender clinics, transgender people in the United States came to rely on a loose

network of medical and mental health providers, often affiliated with the Harry Benjamin International Gender Dysphoria Association (HBIIGDA), which was subsequently renamed the World Professional Association for Transgender Health (WPATH). HBIIGDA/WPATH developed and successively revised standards of care (SOC) for gender transition, which are currently in their seventh revision as the WPATH SOC7.⁷ In the WPATH SOC7, mental health professionals are tasked with determining whether those interested in gender-affirming treatments meet eligibility criteria, have capacity for informed consent, and have adequately anticipated the psychosocial impacts of their transition.

Table 1. Glossary

Assigned gender: the initial gender attributed to an individual after birth; for most individuals, this corresponds to the sex on their original birth certificate, aka assigned gender, birth sex.*
Cisgender: a term for individuals whose experienced and expressed gender are congruent with their gender assigned at birth, that is, those who are not transgender.
Experienced gender: one's sense of belonging or not belonging to a particular gender, aka <i>gender identity</i> .
Expressed gender: how one expresses one's experienced gender.
Gender: a person's social status as male (boy/man) or female (girl/woman), or alternative category.*
Gender-affirming surgery: surgical procedures intended to alter a person's body to affirm their experienced gender identity, aka sex reassignment surgery, gender reassignment surgery, and gender-confirming surgery.
Gender assignment: assignment of a gender to an individual. In typically developed newborns, the initial gender assignment (aka “birth-assigned gender”) is usually made on the basis of the appearance of the external genitalia.
Gender binary: a gender-categorization system limited to the two options, male and female. Individuals who identify outside the gender binary may use a variety of gender identity labels, including genderqueer or nonbinary.
Gender dysphoria (not capitalized): distress caused by the discrepancy between one's experienced/expressed gender and one's assigned gender and/or primary or secondary sex characteristics.
Gender Dysphoria (GD) (capitalized): a diagnostic category in DSM-5, with specific diagnoses defined by age group-specific sets of criteria. This article addresses only GD in adults.
Gender identity: one's identity as belonging or not belonging to a particular gender, whether male, female, or a nonbinary alternative, aka experienced gender.
Gender Identity Disorder (GID) a diagnostic category in DSM-III and DSM-IV that was replaced in DSM-5 by <i>GD</i> .
Gender incongruence (not capitalized): incongruence between experienced/expressed gender and assigned gender, and/or psychological gender characteristics.
Gender Incongruence (capitalized): a diagnostic category (analogous to GD in DSM-5) proposed for ICD-11.
Gender role: cultural/societal definition of the roles of males and females (or of alternative genders).
Gender transition: the process through which individuals alter their gender expression and/or sex characteristics to align with their sense of gender identity.
Gender variance: any variation of experienced or expressed gender from socially ascribed norms within the gender binary.
Gendered behavior: behavior in which males and females differ on average.
Genderqueer: an identity label used by some individuals whose experienced and/or expressed gender does/do not conform to the male/female binary or who reject the gender binary.
Intersex conditions: a subset of the somatic conditions known as “disorders of sex development” or “differences of sex development” in which chromosomal sex is inconsistent with genital sex, or in which the genital or gonadal sex is not classifiable as either male or female. Some individuals who report their identity as “intersex” do not have a verifiable intersex condition.
Sex: a person's categorization as biologically male or female, usually on the basis of the genitals and reproductive tract.*
Sex assigned at birth: the sex or gender first assigned to an individual after birth. Also known as “natal gender,” “birth-assigned sex,” and “gender assigned at birth.” Often queried as “What sex was listed on your original birth certificate?”
Sexual orientation: a person's pattern of sexual attraction and physiological arousal to others of the same, other, both, or neither sex. Sexual orientation cannot be inferred from one's gender identity. As a show of respect, we recommend that the sexual orientation of transgender individuals be expressed in relation to their gender identity rather than their gender assigned at birth; however, all gender scholars do not follow that convention. Ambiguity in charting can be avoided by using terms such as sexually attracted to men, women, both, or neither.
**Transgender: an umbrella term usually referring to persons whose experienced or expressed gender does not conform to normative social expectations based on the gender they were assigned at birth.
**Transsexual: a term often reserved for the subset of transgender individuals who desire to modify, or have modified, their bodies through hormones or surgery to be more congruent with their experienced gender.

*On official documents such as birth certificates, driver's licenses, and passports, the traditional category “sex” is equivalent to “gender” in current psychological terminology.

“Trans” (also “Trans) More recent umbrella terms being increasingly used to avoid distinguishing between transgender and transsexual individuals. DSM, Diagnostic and Statistical Manual of Mental Disorders; GD, Gender Dysphoria; GID, Gender Identity Disorder; ICD, International Classification of Diseases.

The WPATH SOC also provide clinical guidance for health professionals to assist transgender people in their search for psychological well-being in their gendered selves. In the absence of other comprehensive English language guidelines, U.S. providers and their professional associations came to rely heavily on the HBIDGA/WPATH SOC.⁸⁻¹⁰ Similarly, insurance carriers and tax courts employ WPATH SOC criteria in evaluating the medical necessity of transition treatments for determination of reimbursable and tax-deductible medical expenses.¹¹⁻¹⁴

With transition services offered outside of university-based clinics, U.S. medical schools and residency training programs offered little exposure to the provision of transition services, leaving psychiatrists and other physicians poorly prepared for the growth in demand for these services seen in recent years.¹⁵ This article aims to assist adult psychiatrists and other mental health professionals who are not gender specialists in the care of these individuals. Detailed information on the assessment and treatment of gender dysphoria in children and adolescents can be found elsewhere.¹⁶⁻¹⁹

A glossary of transgender-related terms is found in Table 1. Providers should be respectful of their patients' identity labels; however, due to the rapid evolution of gender terminology, they may need to clarify how both their patients and colleagues employ particular terms.

Diagnostic and Statistical Manual of Mental Disorders and Transgender-Related Nosology

The first two editions of the Diagnostic and Statistical Manual of Mental Disorders (DSM) published in 1952 and 1968, respectively, did not include any gender diagnosis.²⁰ The diagnosis, "Transsexualism" (sic), first appeared in 1975 in the ninth revision of the International Classification of Diseases (ICD)-9²¹ and subsequently, in the DSM-III in 1980 under the parent category, Sexual Deviations.²² The defining characteristics of this diagnosis were as follows: (1) discomfort about one's assigned sex; (2) "cross-dressing," in reality or fantasy, as the other sex, but not for the purpose of sexual excitement; and (3) the desire to get rid of one's primary and secondary sex characteristics and to acquire those of the other sex. DSM-III also included "Gender Identity Disorder of Childhood" (GIDC).

Both transsexualism and GIDC were carried over into DSM-III-R, but were no longer categorized as sexual deviations. Instead, they were placed within the parent category, Disorders Usually First Evident in Infancy, Childhood, or Adolescence.²³ This category also included

disruptive behavior disorder, eating disorders, and tic disorders. Under this parent category, DSM-III-R added a new diagnosis, Gender Identity Disorder of Adolescence and Adulthood Nontranssexual Type (GIDAANT). These changes recognized that gender identity disorder (GID) often begins in childhood, may or may not persist into adolescence and adulthood, and when it does persist, it may not entail a desire for the primary or secondary sexual characteristics of the other sex.

With DSM-IV, the diagnoses of Transsexualism and GIDAANT were discontinued, but GIDC and GIDAA were retained and placed under a new parent category, Sexual and Gender Identity Disorders, a category that also included the unrelated sexual dysfunctions and paraphilias.²⁴ Individuals with somatic intersex conditions, who experienced dysphoria attributable to dissatisfaction with their gender assigned at birth, could be diagnosed with Gender Identity Disorder Not Otherwise Specified.

Retention of the diagnosis by the DSM and its new name, including the word "disorder," was perceived by many as stigmatizing and contributing to societal discrimination against transgender individuals.²⁵ By analogy to homosexuality, much of the distress and functional impairment associated with being transgender, and required for the diagnosis of GID, could derive from social stigmatization rather than from being transgender, *per se*. On the other hand, removal of a coded diagnosis for medical classification and billing purposes would limit access to transition care, deny the full impact of gender dysphoria, and prove harmful to transgender individuals.^{2,26}

Ultimately, the diagnosis was retained by DSM-5,²⁷ but its name was changed to Gender Dysphoria (GD), simultaneously removing the stigmatizing "disorder" from its name and shifting the focus to dysphoria as the target symptom for intervention and treatment, rather than gender identity itself.^{27,28} GD was also moved out of the parent category that included sexual dysfunctions and paraphilias, with which it has nothing in common, and into a separate parent category, also named Gender Dysphoria.

Use of the diagnostic label, GD, requires that a person meets the full criteria specified in DSM-5. This is distinctly different from the historical generic use of the term, gender dysphoria, which refers to the distress caused by a discrepancy between one's experienced gender and assigned gender, whether or not full DSM criteria for GD are met. For clarity here, references to the diagnosis will be capitalized or abbreviated (i.e., Gender Dysphoria or GD) while references to the symptom will not be capitalized or abbreviated (i.e., gender dysphoria).



The DSM is a manual on mental disorders and, therefore, despite the name change, GD retains its classification as a mental disorder. In contrast, the ICD is not limited to only mental disorders. In its forthcoming eleventh iteration, ICD-11, the diagnosis of Gender Incongruence (GI) (corresponding to GD in DSM-5 terminology) will most likely be moved out of the section on mental disorders. Instead, it has been proposed to place it in a separate section tentatively named Conditions Related to Sexual Health or Sexual and Gender Health.²⁹ Placing GI in this section will declassify it as a mental disorder, while maintaining a diagnosis that will facilitate access to care through third party reimbursement, and could eventually lead to American Psychiatric Association (APA) removing GD from the DSM.

Importantly, the GD diagnosis does not apply automatically to people who identify as transgender but is given only to those who either exhibit clinically significant distress or impairment associated with a perceived incongruence between their experienced/expressed gender and their assigned gender or who, after transition, no longer meet full criteria, but require ongoing care (e.g., hormonal replacement therapy). In DSM-5, this latter group is given a "post-transition" specifier.

Unlike previous versions of the DSM, in DSM-5, gender-dysphoric individuals with somatic intersex conditions, who were previously excluded from the diagnosis, can now receive the diagnosis with a specifier to indicate the presence of the intersex condition. DSM-5 is also the first DSM to recognize the legitimacy of gender identities outside the gender binary such that individuals with GD are no longer described as identifying simply as "the other gender," but as "the other gender (or some alternative gender different from one's assigned gender)." Examples of alternative genders include eunuch, genderqueer, and nonbinary.

Epidemiology

Epidemiological research has employed different measures of transgender populations, resulting in varying estimates of prevalence.^{30,31} Some studies assessed the fraction of a population, which had received the DSM-IV diagnosis of GID or the ICD 10 diagnosis of transsexualism, both of which were limited to clinical populations who sought binary transition (male-to-female or female-to-male). For example, the prevalences reported in DSM-5 (0.005–0.014% for birth-assigned males; 0.002–0.003% for birth-assigned females) are based on people who received a diagnosis of GID or transsexualism, and were seeking hormone treatment and surgery from

gender specialty clinics,²⁵ and, therefore, do not reflect the prevalence of all individuals with gender dysphoria or who identify as transgender.

The prevalence of transgender people receiving gender specialty care in the Netherlands has been estimated at 0.008% for transgender women and 0.003% for transgender men.³² More recent data for those obtaining surgery in Belgium were similar.³³ In Sweden, point prevalence in 2010 was estimated to be 0.013% for transgender women and 0.008% for transgender men.³⁴ A higher percentage, 0.023%, received a diagnosis of GID recorded in the health records of the U.S. Veteran's Administration.³⁵

Other studies, rather than measuring the proportion of a population that received a clinical diagnosis, have reported on those who self-identified as transgender or gender incongruent, and found that measuring self-identity yields much higher numbers. In 2016, data from the Center for Disease Control's Behavioral Risk Factor Surveillance System suggested that 0.6% of U.S. adults identify as transgender, double the estimate utilizing data from the previous decade.³⁶

In a large Massachusetts population-based phone survey, 0.5% of the population (age 18–64 years) identified as transgender.³⁷ In another large population-based survey in the Netherlands, 1.1% of those assigned male at birth (age 15–70 years) reported an incongruent gender identity (stronger identification with a gender other than the one assigned at birth), as did 0.8% of those assigned female at birth.³⁸

Recent surveys of youth showed even higher numbers. In New Zealand, 1.2% of high school students surveyed identified as transgender.³⁹ In a survey of San Francisco middle school students (grades 6–8), 1.3% identified as transgender.⁴⁰ More study is needed, but these larger numbers indicate that many transgender people have not been counted in clinical studies, including those with nonbinary identities, those not seeking transition care, those receiving hormones outside of clinics specializing in transgender care or by self-administration, and others who identify as transgender when surveyed, but do not report gender dysphoria to clinicians.

Gender Development

Biological considerations

Animal research has established that sex differences in the phenotype of both body and brain as well as behaviors are the result of multiple, sex-biasing factors. These include hormonal, sex-chromosomal,⁴¹ genetic, and epigenetic contributions.⁴² The sensitivity of brain

tissues to organizational effects of sex hormones appears to be particularly high at prenatal/perinatal stages of development and gradually declines toward young adulthood.⁴³ The timing of hormonal secretions in the course of development, however, gives the impression of three discrete sensitive periods: (1) pre/perinatal; (2) pubertal⁴⁴; and (3) for females, the first pregnancy.⁴⁵

In humans, statistical sex differences in brain structure are well documented,⁴⁶ and findings of sensitive periods for sexual differentiation of the brain appear to parallel those seen in other mammals.^{47,48} The evidence for brain/behavior effects of prenatal androgenization is particularly strong,⁴⁹⁻⁵¹ much of which derives from studies of individuals with somatic intersex conditions and varying degrees of functional androgen exposure.⁵¹⁻⁵³

Androgenization of the brain depends not only upon the level of androgen to which a fetus is exposed but also upon numerous other factors, including the presence of enzymes to convert androgens to the specific metabolites required by particular brain cells, their steroid receptors, and their postreceptor mechanisms that are involved in the full response to androgens. Receptor structure, which can influence sensitivity, is genetically determined, while the activity of genes for receptors and postreceptor mediators is subject to epigenetic modulation.⁵⁴

As the period of genital differentiation largely precedes the sexual differentiation of the brain,⁵⁵ it is conceivable that GD in individuals without somatic intersex conditions could reflect a brain-limited intersex condition (i.e., a lack of concordance between the sexually differentiated state of the brain and body). That hypothesis has been tested in a variety of ways, including searching for features of the brain in individuals with GD that more closely match their experienced gender than their birth-assigned gender.⁵⁶ Investigations in this regard have included postmortem morphometric and stereological studies,⁵⁷ as well as *in vivo* morphometric,⁵⁸ functional magnetic resonance imaging,⁵⁹ and diffusion tensor imaging studies of the brain,⁶⁰⁻⁶² and examination of otoacoustic emissions.⁶³

As reviewed elsewhere,^{53,56,64} while some positive findings in the predicted direction have been reported,^{56,64} inferences are currently limited. This is because few findings have been replicated and few studies have adequately controlled for potentially confounding variables such as age, sexual orientation, transition status (including history of gender-affirming hormonal treatment, if any), and hormonal status at the time of study (or of death in the case of postmortem studies).⁵³

Much of what is known about the role of early hormonal exposure on the development of gender identity in humans derives from studies of gender outcomes in individuals with somatic intersex conditions. Early guidelines for initial gender assignment for such infants relied heavily on the surgical potential to achieve concordance between the gender assigned and the appearance and functional potential of the external genitalia, in particular, the capacity of penile-vaginal intercourse.⁹ Current guidelines, however, emphasize what is known about the long-term gender outcomes of individuals with intersex conditions on a syndrome by syndrome basis.⁵²

Overall, these data suggest that regardless of genetic constitution, or gonadal or genital development at birth, individuals prenatally exposed to a full complement of masculinizing hormonal influences (i.e., androgen exposure and the cellular mechanisms for responding fully to androgens as described above) have an increased likelihood of GD when assigned female.^{51,52} Conversely, most reported 46,XY individuals with complete androgen insensitivity syndrome (and hence no functional androgenization of the brain) have developed a female gender identity, despite having a Y chromosome as well as normally developed and functioning testes.^{51,52} To date, however, no brain marker of sexual differentiation has been validated to guide the initial gender assignment of infants with intersex conditions.

Psychosocial factors influencing gender expression

In mammals, and particularly in humans, psychological and social factors have a major additional influence on behavioral outcome.⁶⁵ In humans, these psychosocial processes include verbal labeling (e.g., “boy” and “girl”) and nonverbal gender-cuing (e.g., gender-specific clothing and haircuts) of children by parents and others in their social environment, as well as the shaping of children’s gendered behavior by positive and negative reinforcement and later by explicit statements of gender-role expectations. Related processes in developing children include gender-selective observational learning/imitation, the formation of gender stereotypes and of related self-concepts, and self-socialization. The effects on gender development have been documented in a vast body of research in developmental psychology.⁶⁵

The impact of such psychosocial factors, however, is not determinative. This is evidenced by individuals in whom gender identity is discordant with the initial gender assignment and gender of rearing, for example, transgender individuals and a higher than expected



proportion of individuals with particular intersex conditions (i.e., 46,XY individuals with high degrees of somatic hypomasculinization and 46,XX individuals with high degrees of somatic hypermasculinization^{66,67}).

Factors in gender-identity development

Systematic data on gender identity development are much more limited than those on gendered behavior. Yet, the data available, especially for those with intersex conditions, lead to the conclusion that, while early androgenization plays a role, a definitive biological pre-determination of gender identity seems unlikely. Not a single biological factor, but multiple factors (i.e., biological, psychological, and social) appear to influence the development of gender identity.⁵⁰

The need to transition gender is even less understood in individuals without, compared to those with, intersex conditions.⁶⁸ Along with the dramatically increased referrals of gender-variant individuals to specialized clinics in Western Europe and North America over the last two decades,^{69,70} there has been a diversification of presentations beyond the original “transsexual” who sought (or was perceived by providers to seek) change to the “other” gender through treatment with gender-affirming hormones and genital surgeries. Currently, many transgender people seek chest, but not genital surgery, or only gender-affirming hormones, or only a social transition without any medical changes. Others may simply desire flexibility in gender expression without transition to “the other gender,” identifying, for example, as nonbinary or genderqueer.^{71,72}

Prospective follow-up studies of children, who before puberty had met criteria for the DSM-IV diagnosis of GID, showed that the majority of those diagnosed with GID in early or early middle childhood “desisted,” meaning that they subsequently identified as their birth-assigned gender and did not meet criteria for GID. As adults, many identified as lesbian, gay, or bisexual.^{73–75} Some “desisters,” however, subsequently transitioned later in life.⁷³

The data available do not allow a clear prediction before puberty of which child will persist and transition permanently, and which child will not.⁷⁵ With the introduction of stricter criteria for the diagnostic category of Gender Dysphoria in DSM-5, the persistence rate likely will be higher,⁷³ but this needs to be tested by future long-term follow-up studies. For example, the degree of gender nonconformity and whether a child believes they *are*, as opposed to *wishes to be*, “the other” gender have been proposed as predictors of persistence.^{76,77} Those in whom GD persists from

childhood into adolescence are likely to experience an exacerbation of dysphoria with the emergence of (or with the anticipation of) undesired secondary sexual characteristics at puberty, in which case pubertal suspension should be considered.¹⁰

Regardless of their initial sexual orientation, during and after transitioning to express their experienced gender, some individuals retain their pretransition sexual attraction patterns, while others change.⁷ In some transgender women, the desire to transition gender is preceded by fantasizing themselves as women, sometimes with sexual arousal.⁷⁸ This phenomenon has been controversially interpreted by some as fetishism.⁷⁹ Importantly, neither a history of fetishistic arousal nor one’s sexual orientation precludes one from meeting the criteria for the diagnosis of GD²⁷ or eligibility for gender transition services.^{7,80}

Mental Health Assessment and Treatment

This section addresses the assessment and treatment of adults with gender identity or expression concerns in the absence of an intersex condition. GD in individuals with intersex conditions is addressed in the Appendix. Treatment of GD in prepubescent children, where there is currently less consensus,⁸¹ is addressed elsewhere as is treatment of adolescents, including selection of candidates for pubertal suspension.^{81,82} The primary roles of the mental health professional in assessing and treating patients with GD are based on expert consensus,^{7,8,10,20} summarized in Table 2 and described more fully below in the broader context of gender variance.

Expert consensus regarding the treatment of adults has been arrived at after many years of clinical experience. Attempts to engage individuals in psychotherapy to

Table 2. Roles of the Psychiatrist

Assess and diagnose gender concerns according to current DSM criteria and see that they are addressed.
Assess and diagnose any coexisting psychopathology and see that it is addressed.
Assess eligibility for hormonal and/or surgical treatments, or refer to professionals capable of making such assessments.
Assess capacity to give informed consent for hormonal and surgical treatments.
Ensure that eligible individuals are aware of the full range of treatment options and their physical, psychological, and social implications, including risks, benefits, and impact on sexual functioning and reproductive potential.
Ensure adequate psychological and social preparation for transition treatments.
Refer patients for hormonal or surgical treatments, collaborating with providers as needed.
Ensure continuity of mental healthcare as indicated throughout transition and beyond.



change their gender identity or expression are currently not considered fruitful by the mental health professionals with the most experience working in this area^{7,9,83} and legal bans of therapies aimed at changing sexual orientation have recently been extended to therapies aimed at changing gender identity or expression in a number of U.S. states and Canadian provinces.^{84,85} Currently, psychotherapeutic involvement with adults with GD is primarily used to assist in clarifying their desire for, and commitment to, changes in gender expression and/or somatic treatments to minimize discordance with their experienced gender, and to ensure that they are aware of and have considered alternatives.⁷

Gender questioning, gender-variant, and transgender adults present to mental health services for a variety of reasons. Some presentations may relate explicitly to gender. For example, patients may wish to explore their gender identity, consider transition options and concerns (e.g., coming out to family or coworkers), or request evaluation for hormonal or surgical treatments. The latter may include requests for referrals for such treatments, including requests for mental health referral letters as specified by the WPATH SOC7 or required by their providers of transition treatments and/or insurance carriers.^{7,11-13}

According to WPATH SOC7, as an alternative to an evaluation by a mental health professional, primary care providers who are competent in the assessment of GD may evaluate patients for hormone therapy, particularly in the absence of significant coexisting mental health concerns and when working in the context of a multidisciplinary specialty team.⁷

Patients may also seek couples or family therapy before, during, or after transition to address the impact of the transition on interpersonal or family dynamics. Alternatively, many transgender patients seek or are referred to psychiatric services for reasons that are either unrelated to gender identity or expression (e.g., management of primary psychiatric illnesses), or only partially related (e.g., sequela of childhood trauma as a result of minority stress due to gender nonconformity).

A careful evaluation for a history and psychological sequela of gender-related stigma and abuse, from childhood on, is crucial given the high rates of violence and bullying experienced by gender-variant individuals, as well as the high rates of discrimination, unemployment, homelessness, sex work, and HIV infection.^{3,86} High rates of depressive, anxiety, and substance use disorders, as well as suicidal ideation and completed suicide have been linked to such gender minority stress.⁸⁷⁻⁸⁹ In addition to these mental health dispar-

ities, the transgender population also exhibits marked general health disparities.⁹⁰ Few of these disparities are linked to sexually transmitted infections or hormonal or surgical transition treatments,^{7,10,90} but are instead linked to financial barriers to care as well as avoidance of healthcare due to experienced and/or anticipated stigma and discrimination in healthcare settings, and the widespread belief among transgender individuals that medical professionals are poorly trained to meet their needs,³ a belief that appears to be well-founded.¹⁵ Extensive guidance on overcoming these barriers to care, including creating a welcoming clinical environment, can be found elsewhere.⁹¹

Assessment of gender concerns

Treatment should be patient centered and tailored to the needs and individuality of each patient. Patients should be asked what names and pronouns they use and should be addressed by those names and pronouns regardless of their stage of transition. Those who transitioned many years ago and are seeking treatment for another problem typically need much less focus on gender history than those who are questioning their gender identity, just beginning gender transition, or exploring options for gender expression. When gender is not the primary concern, devoting the appropriate amount of attention to gender-related issues is important, balancing against an overemphasis on gender that can feel inadvertently stigmatizing to the patient or distract from adequate focus on the chief complaint.

While it is important to avoid the assumption that coexisting psychiatric symptoms are due to gender variance, the impact of past and present gender-related stigma should be considered in the biopsychosocial evaluation. This is particularly important in light of the stress-diathesis model of psychiatric illness and its exacerbations.^{8,92} Suicidality should always be assessed, as should protective factors such as social and family supports.⁹³ Suicidal ideation^{3,94} and completed suicide⁹⁰ are dramatically increased in this population and GD may be a risk factor for suicidality, independent of other psychiatric conditions.^{94,95} Up to 47% of transgender adults have considered or attempted suicide.⁹³ Assessment of suicide risk is especially important during periods of heightened vulnerability, such as when transgender identity is disclosed to family and more broadly.^{9,83}

The gender assessment should include the age and circumstances when the patient first became aware of a sense of difference from peers of the same sex assigned at birth as well as experiences of negative affect or self-perception



related to that sense of difference.^{8,20} Any history of peripubertal and/or pubertal distress due to the anticipation and/or emergence of unwanted secondary sex characteristics should also be explored, as should past experiences of gender-related stigmatization, discrimination, harassment, and violence.^{8,20}

The patient's history of coping mechanisms and support systems should also be examined.^{8,20} Gender expression (e.g., pronoun use, name changes, manner of dress, and bodily modifications) over time should be explored as well as what has and has not been helpful in improving the sense of well-being. It is important to clarify each patient's goals and plans for social and/or medical transition, degree of commitment, and expectations.^{7,96} For those who do not wish to transition, assessing current psychosocial challenges and formulating with the patient how to best address them (e.g., psychotherapy, group therapy, and social support) should not be neglected.

Recommendations regarding psychiatric assessment of individuals with GD have focused largely on assessment of eligibility for and decision-making capacity related to medical and surgical gender transition services.^{7,8,10} Eligibility for both gender-affirming hormone therapy and surgeries requires persistent gender dysphoria, a documented diagnosis of GD based on DSM-5 criteria, and the capacity to give informed consent.⁷ In addition, any significant medical or psychiatric concerns must be sufficiently controlled so that they do not interfere with the patient's ability to safely adhere to the treatment regimen. The current standard of care in major clinics, the WPATH SOC7, and insurance requirements for reimbursement of services follow a flexible progression of transition steps, which may begin with completely reversible steps (e.g., change of pronouns, name, and manner of dress), followed by partially reversible changes (e.g., gender-affirming hormones), and then irreversible gender-affirming surgeries.^{7,10-14,97} There is flexibility in this process given that some people do not pursue all of these interventions or may prefer to do so in a different sequence. For example, transgender men may wish to undergo mastectomy or male breast construction before initiating masculinizing hormones.⁷

Before gonadectomy, 12 months of continuous hormone therapy consistent with the patient's gender goals are recommended, unless hormones are clinically contraindicated for the individual. The aim of hormone therapy before gonadectomy is primarily to allow the individual to experience a period of gender-affirming hormones, before irreversible surgical intervention.⁷

Before masculinizing or feminizing genital reconstructive surgeries, the WPATH SOC7 also recommend 12 continuous months of living in a gender role that is congruent with the patient's gender identity.⁷

Diagnosis of gender dysphoria. The DSM-5 diagnostic criteria for GD in adolescents and adults are shown in Table 3. Diagnosing GD in adults by these criteria is usually straightforward, especially for those with overt manifestations in childhood, exacerbation of distress with pubertal changes, and persistence into adulthood in the absence of significant coexisting mental health concerns.^{8,9}

Assessment of patients who are seeking transition services, but do not clearly meet criteria for GD, may require more time and exploratory therapy⁹ (e.g., a patient desiring hormonal or surgical treatment to transition to another gender, who does not clearly experience incongruence between their experienced gender and their gender assigned at birth). The same is true for those with the onset of gender dysphoria in the context of a psychiatric disturbance (e.g., psychosis, dissociative disorder, and autism spectrum disorder) or recent trauma^{9,98,99}; those who are ambivalent about their gender identity or desired sex characteristics; and those who exhibit marked exacerbations and remissions of dysphoria over time.

The psychiatrist must assess whether some factor other than GD accounts for the expressed desire to transition. If not, coexisting mental illness is not a contraindication to supporting transition if it is sufficiently controlled to not interfere with the patient's capacity for

Table 3. Diagnostic Criteria for Gender Dysphoria in Adolescents and Adults

A marked incongruence between an individual's experienced/expressed gender and assigned sex as evidenced by two of the below, which have been present after the onset of puberty for at least 6 months:
A marked incongruence between one's experienced/expressed gender and primary and/or secondary sex characteristics (or the anticipated secondary sex characteristics in young adolescents).
A strong desire to be rid of one's primary and/or secondary sex characteristics because of a marked incongruence with one's experienced/expressed gender (or a desire to prevent the development of the anticipated secondary sex characteristics in young adolescents).
A strong desire for the primary and/or secondary sex characteristics of another gender.
A strong desire to be of a gender different from one's assigned gender.
A strong desire to be treated as a gender different from one's assigned gender.
A strong conviction that one has the typical feelings and reactions of a gender different from one's assigned gender.
The condition is associated with distress or impairment in social, occupational, or other important areas of functioning that are clinically significant.

Adapted from DSM-5.²⁷



decision-making or ability to safely adhere to the demands of the desired treatment.^{7,9,98}

Differential diagnosis. Few conditions can be mistaken for GD. Simple nonconformity to gender roles can be differentiated from GD based on the degree of associated distress and whether or not the individual identifies as the sex assigned to them at birth. GD can be differentiated from body dysmorphic disorder (BDD), in which an individual may wish a body part to be removed or altered because it is viewed as deformed.²⁷ In contrast, in GD alterations are sought for anatomical characteristics that are incongruent with one's gender identity. BDD and GD can, however, coexist and the presence of BDD is not an absolute contraindication for gender-confirming surgery.²⁷ Transvestic disorder is characterized by significant distress or impairment due to sexual arousal in the context of cross-dressing fantasies, urges, or behavior. It may exist independently or co-occur with GD,²⁷ and is not a contraindication to supporting transition in those who meet criteria for GD.⁷

Gender-themed delusions have been reported to occur in up to 20% of those with psychotic disorders.¹⁰⁰ Such delusions can usually be easily differentiated from GD by their content (i.e., if they do not entail the belief that one's gender differs from that assigned at birth), as well as by their presence only during psychotic phases of illness, and the absence of other DSM criteria required for the diagnosis of GD.⁹⁸ Importantly, GD and psychotic disorders may coexist and patients with both diagnoses can benefit from gender-affirmative treatment and appropriate hormonal and/or surgical gender interventions.⁹⁸ Timely diagnosis of GD may be impeded when it is first overtly expressed in adolescence or early adulthood coincident with, or shortly following, the first psychotic episode.⁹⁸

Mental health treatment

Statements in this section are based on the cited studies supplemented by the authors' cumulative clinical experience treating patients with GD. Psychotherapy can be useful for patients with GD; however, many successfully transition or decide against transition with little or no psychotherapy. Psychotherapy may be helpful at different times and for different reasons across the lifespan.⁷ Many transgender people seek mental health treatment on an intermittent basis, while contemplating gender transition, at key points in the transition process, or post-transition if symptoms recur or worsen.

Participation in transgender support groups, including peer-led groups, and other interactions with transgender individuals or the transgender community are often useful in clarifying the goals of those who experience ambivalence about transition. With patients who are otherwise eligible for transition treatments, but express ambivalence about transition, the therapist should maintain a stance of neutrality, creating a safe therapeutic space in which the patient can weigh all options and arrive at a decision in their own time. Many transgender adults need some combination of hormonal treatment and/or surgical procedures for relief of GD, but some experience relief with a change in gender expression without any medical treatment.⁷ Strengthening resilience factors identified in the transgender population⁹³ should be a focus, particularly, in patients with suicidal ideation.

Although treatment with exogenous estrogen or testosterone carries a risk for medical side effects,¹⁰ both have been associated with improvement with respect to anxiety, mood, and mood stability, as well as overall satisfaction and quality of life for both transgender women and transgender men.¹⁰¹⁻¹⁰⁴ Similarly, review of the available literature⁹ demonstrates the benefits of surgery in alleviating GD and the rarity of postsurgical regret. Emotional changes may occur with use of either androgen or estrogen supplementation, although these are usually subtle.⁹ An increase in libido usually occurs with androgen use with female to male transition.¹⁰ Although decreased libido due to antiandrogen and/or estrogen treatment in individuals transitioning male to female is common,¹⁰ some may experience a stronger interest in sex, perhaps due to the affirming aspects of attaining desired bodily changes.

Safer sex information and instruction in self-protective negotiation in sexual settings should be provided and tailored to the anatomy, needs, and experiences of transgender persons.⁹ Masculinizing hormones have been associated with a possible destabilization of psychotic and bipolar disorders, especially with supraphysiological blood levels of testosterone⁷ in both cisgender and transgender men.¹⁰⁵⁻¹⁰⁶ The likelihood of such episodes can, therefore, be minimized by careful dosing and monitoring.

Detailed information on specific gender-affirming surgical procedures can be found elsewhere.^{7,107} Psychiatrists should collaborate with other providers (e.g., endocrinologists, surgeons, psychotherapists, primary care providers, social workers, and other mental health professionals) to ensure that patients have the knowledge required to adequately evaluate the benefits, risks, and limitations of desired treatments and their



alternatives. This is necessary not only for informed consent but also to ensure adequate preparation for surgery and postsurgical needs (e.g., convalescent period, period of sexual abstinence, and vaginal dilatation in the case of vaginoplasty).

Helping the patient anticipate and prepare for psychosocial impacts of treatment (e.g., impact on social relationships and employment) is also essential. Importantly, transition treatments target GD, not coexisting psychiatric diagnoses, and coexisting diagnoses are likely to require ongoing attention after transition, although symptom severity may be ameliorated.^{98,100,102}

Referrals for hormones and surgery

Whether the initial evaluation for hormones is done by the hormone prescriber or by a mental health professional, criteria for starting hormones are the same: the presence of persistent GD, the ability to give informed consent, and relative mental health stability.⁷ Insurance carriers and surgeons require mental health evaluation before transition-related surgeries to assess and document eligibility, readiness, and medical necessity of the requested procedure.^{7,10-14}

The specific requested content of referral letters varies among surgical providers and insurance plans. To avoid unnecessary delays in treatment, letter writers should be aware of such differences and ensure that their letters meet the requirements of all relevant parties. The content requested by most providers and insurance carriers is similar to that outlined in the WPATH SOC7. Genital and gonadal surgeries usually require documentation from two licensed mental health professionals, while chest surgeries generally require just one evaluation and referral.^{7,108} Although not requirements of WPATH SOC7, some insurers require one letter from a psychiatrist or other doctoral level mental health provider, or may specify a minimal duration of mental healthcare.¹³ Such requirements vary by health system, insurance carrier, and state, and raise challenges for those without access to reimbursement for mental healthcare.

Current Social Issues: Stigmatization and Access to Care

Transgender health advocates have worked to address societal discrimination against transgender people, including stigmatization of identity, discrimination in schools, workplaces, and healthcare, and to improve access to care. Increasingly, this advocacy has been embraced by major institutional and governmental agencies. One

large online survey, the National Transgender Discrimination Survey⁸⁸ found that rejection, discrimination, victimization, and violence against transgender people occur in a multitude of settings and negatively affect transgender people across the life span. Transgender youth are often harassed and assaulted in schools, which is associated with dropping out and subsequent impoverishment. Many transgender people are harassed at work or lose jobs due to their gender identity and expression. Discrimination extends to healthcare settings, where patients may be refused care or treated disrespectfully, or do not have access to care.⁸⁸

U.S. public policy has contributed to the lack of access to care. A report by the National Center for Health Care Technology of the HHS Public Health Service issued in 1981, titled "Evaluation of Transsexual Surgery," deemed these procedures "experimental," and recommended that Medicare not cover transition-related care. This was formalized in a 1989 Health Care Financing Administration National Coverage Determination.⁵ Exclusion of transgender healthcare in private insurance as well as Medicaid and Medicare was near universal in the decades to come. A lack of funding for clinical care and research led to the closing of transgender care programs at academic institutions in the years following the 1981 report.

Many transgender health insurance exclusions have been removed recently. This trend started with increasing numbers of employers in the last 15 years adding transition care to health coverage. Starting in 2013, some states have ruled that transgender healthcare exclusions are discriminatory and have banned them from state-regulated health insurance plans. In 2014, the 1981 Medicare policy was reversed, removing categorical exclusions for transgender care.⁶ In 2015, the HHS moved to end categorical exclusions for transgender care from all insurance and care providers who accept federal funding or reimbursement,¹⁰⁹ and since 2016, insurers in the Federal Employees Health Benefits Program must include transition-related coverage for transgender federal employees.¹¹⁰

During this same period, executive orders and other guidance from the Obama administration conferred increased protection against discrimination to transgender individuals in workplace and educational settings,¹¹¹ the ban on open military service of transgender individuals was lifted,¹¹² and changes at the HHS and the National Institutes of Health (NIH) facilitated research to better define and address the health needs of transgender individuals.¹¹¹ Much work remains, however, to fully



actualize these policy changes. In addition, progress has been slowed on the federal level by the change in presidential administrations and legal actions.¹¹³

WPATH SOC7⁷ has attempted to improve access to care by including the informed consent model for hormone administration. In multidisciplinary clinics providing transgender care, primary care providers can assess for and diagnose longstanding GD that might benefit from treatment with hormones and administer hormones without referral from a mental health professional. However, patients with cooccurring mental health conditions should be referred to mental health providers when appropriate. WPATH has advocated for the depathologization of transgender identity, the medical necessity of transgender care, and improved access to legal gender change.⁷

The APA has also attempted to reduce stigma and improve access to care. As discussed previously, the DSM-IV diagnosis of GID, regarded as stigmatizing by many transgender health and advocacy groups, was replaced with GD in DSM-5.¹¹⁴ In addition, the APA approved position articles on discrimination and access to care. Its statement on discrimination against transgender and gender-variant individuals¹¹⁵ opposes all private and public discrimination against transgender individuals, and its statement on access to care for transgender and gender-variant individuals¹¹⁶ urged the removal of all categorical healthcare exclusions for transgender people and advocated for the expansion of access to care.

Increased access to care must be accompanied by culturally competent research in transgender health, recommended by the Institute of Medicine⁸⁶ and outlined in the NIH's Strategic Plan to Advance Research on the Health and Well-being of Sexual and Gender Minorities.¹¹⁷ Expanded and improved education of healthcare providers is necessary, and the American Association of Medical Colleges has produced guidelines for curricular and climate change to improve transgender health.¹¹⁸ Principles of culturally competent care for transgender and nonbinary patients should be included in residency training as well, including psychiatric residency programs.

Conclusions

Transgender, nonbinary, and gender questioning people are sufficiently common that even psychiatrists whose practice does not focus on gender are likely to encounter patients who have transitioned gender, are planning or considering transition, or are questioning their gender identity. Gender concerns are only one

of the reasons these individuals may seek psychiatric care and, regardless of their area of specialization, psychiatrists should be adept at conducting respectful, culturally sensitive, and affirming gender assessments without placing an undue emphasis on gender when it is not the patient's presenting concern. Mental health professionals must fully appreciate that the focus of treatment for GD is on the dysphoria, not the gender identity. At the same time, they must appreciate the role of minority stress in gender minority mental health disparities, screen for related manifestations, including anxiety disorders, depression, and suicidality, and consider resilience factors in treatment planning.

Psychiatrists should also be competent in the provision of routine psychiatric care that is gender affirming to gender variant patients with serious mental illnesses without assuming that the gender variance is a manifestation of the illness. They should not expect coexisting serious mental illness, especially in the context of strong genetic loading, to fully resolve with successful treatment of GD and should assist the patient in formulating realistic expectations.

If not included in their residency or fellowship training, or supervised clinical experience, psychiatrists should familiarize themselves with the standards of care for gender transition as described in the WPATH SOC7 and outlined in this article, as well as the roles and minimal competencies of mental health professionals working with adults with GD.⁷ In addition to the minimal competencies, WPATH SOC7 recommends that health professionals take steps to sustain or augment their cultural competency to work with transgender and other gender minority patients by participating in continuing education and becoming knowledgeable about community, advocacy, and public policy issues that affect transgender individuals and their families.⁷

All providers should work within their sphere of competency and refer patients when necessary. Board-certified psychiatrists should be competent in the diagnosis of GD by the criteria of the most current DSM and in assuring that any coexisting psychiatric disorder is appropriately diagnosed and adequately controlled.¹¹⁸ In the absence of additional training, they should refer to other providers or seek supervision in fulfilling the other tasks of mental health professionals in addressing the gender concerns of transgender and other gender diverse patients. Providers from all disciplines should work within their professional organizations to ensure that training in gender-affirmative care is integrated throughout all levels of the training curriculum.¹¹⁹



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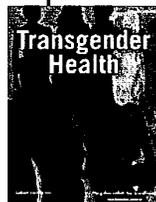
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Abbreviations Used

APA = American Psychiatric Association
 BDD = Body Dysmorphic Disorder
 DSM = Diagnostic and Statistical Manual of Mental Disorders
 GD = Gender Dysphoria
 GID = Gender Identity Disorder
 GIDAANT = Gender Identity Disorder of Adolescence and Adulthood Nontranssexual Type
 GIDC = Gender Identity Disorder of Childhood
 HBGIDA = Harry Benjamin International Gender Dysphoria Association
 HHS = U.S. Department of Health and Human Services
 ICD = International Classification of Diseases
 NIH = National Institutes of Health
 SOC = Standards of Care
 WPATH = World Professional Association for Transgender Health

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(Appendix follows →)



Appendix

Gender Dysphoria in Patients with Intersex Conditions

As reviewed elsewhere,^{A1} Gender Dysphoria (GD) and patient-initiated gender transition occur with increased frequency in individuals with intersex conditions. Because Diagnostic and Statistical Manual of Mental Disorders-5 now allows gender-dysphoric individuals with somatic intersex conditions to receive the diagnosis of GD, psychiatrists need to be aware of assessment- and treatment-relevant characteristics of such individuals that differ from gender-dysphoric individuals without somatic intersexuality.^{A2}

Intersex conditions are a subset of conditions relatively recently designated as “disorders of sex development”^{A3} or “differences of sex development” (DSD).^{A4} We use the term “intersex” in this document as our focus is on that subset of individuals with DSDs who were born with atypical external genitalia or lack of concordance among various sex characteristics such as sex chromosomes, gonads, or external genitalia so that questions often arise as to which gender should be assigned at birth. GD may develop from late preschool age through late adulthood with a range from 0% to ~70% depending on the specific intersex syndrome, its severity (degree of androgen insensitivity, degree of 21-hydroxylase deficiency, degree of genital atypicality, etc.), the gender originally assigned, and the postnatal history of exposure to both endogenous and exogenous sex hormones.^{A5}

Persons with the combination of GD and intersex condition encounter fewer barriers to legal gender reassignment, and the barriers to hormonal and surgical treatments are much lower.^{A1} This is because, depending on the particular condition, individuals with an intersex condition may have been gonadectomized (often due to concern about risk of malignancy) before puberty so that administration of exogenous hormones is required as part of routine care to induce puberty. In addition, infertility is quite common whether due to the condition itself or to gonadectomy, and genital surgery has often been done in infancy or childhood with the intent of affirming, both to the patient and the parents, the gender to which the individual was assigned. Furthermore, such early procedures may have been followed by additional surgical modifications in adolescence or young adulthood.

Decisions regarding hormonal and surgical procedures are complicated by the highly variable somatic pre-

sentations of the various intersex conditions. Thus, to be fully effective, the mental health provider needs to be informed about the medical and surgical history of the individual,^{A6,A7} the available data on long-term gender development (e.g., contentment vs. dysphoria in the assigned gender), and other psychological outcomes of patients on a syndrome by syndrome basis.^{A5,A8} Moreover, intersex conditions are frequently associated with stigma, even in medical settings, which may result in shame and maladaptive coping mechanisms on the part of the patients as well as their parents.^{A9-A12}

Providers need to be aware of the many ways in which some individuals with intersex conditions report having been stigmatized by their treatment by clinicians and parents (e.g., failure of age-appropriate disclosure of their condition, attempts to modify their gender expression, and repeated genital examinations^{A9,A13}). Efforts are under way to develop decision-making tools and clinical checklists to ensure that parents and affected children are adequately assessed and informed as active participants in decision-making processes and that the intersex condition and its ramifications are disclosed to the affected individual in an age-appropriate manner.^{A14}

Gender evaluation

The questionnaires and interview schedules developed for the assessment of gender development in transgender individuals who do not have an intersex condition^{A15,A16} apply to those with intersex conditions as well, but need to be complemented by detailed medical, surgical, and related psychosocial histories, including the histories of disclosure to the patient of her/his medical condition, efforts made to reinforce the initial gender assignment, and responses by parents and providers to behaviors perceived as atypical with respect to the gender assignment. Mental health providers should also assess the patient’s knowledge of their surgical history, their understanding of the implications with respect to fertility and gender-affirming hormonal and surgical procedures, and any history of shaming or other stigma due to their condition, or perceived gender atypicality with respect to their gender assigned at birth.

Decisions regarding gender transition

For individuals with intersex conditions, GD usually raises the question of transition to a different gender,



and all issues of relevance to transgender persons without these conditions should also be considered here. Yet, the situation is often more complex than in GD in the absence of an intersex condition. Factors contributing to the desire to transition may include the awareness of the discrepancy between assigned gender and genetic factors such as the karyotype, anatomic factors such as the type of gonads, and secondary sex characteristics like breast development in men or hirsutism and masculine habitus in women. Related psychosocial influences may derive from being misidentified as the “other” gender or from frank stigmatization due to gender-atypical physical features.

Different cultures and even subcultures within a given country may differ in the roles (including rights) associated with one’s gender, and in the salience and weight of criteria used in decision-making on gender reassignment.^{A17,A18} When discussing gender options, clinicians need to consider the legal regulations of the country in which they work as well as the religious and other ideologies that can influence the gender perspectives of patients (and of caregivers for minors). These considerations are also very important when doing clinical work with visitors or immigrants from foreign countries. Thus, the viewpoints of patients (and caregivers) within their cultural contexts should be explored in detail and taken into consideration when these individuals are provided with psychoeducation about gender and other issues related to their intersex conditions.^{A19}

As with other transgender patients, when working with patients with an intersex condition and GD, clinicians should engage the patient in a detailed discussion of their expectations from the gender transition: the social effects of public gender change as well as the medical and social effects of the attendant change in hormone treatment and, if desired, of genital or chest surgery. Some of their expectations may be unrealistic, and after detailed discussion, some patients may modify the hormonal and/or surgical treatments they desire or decide against medical treatments or legal gender change, and pursue other ways of finding authenticity in their gender expression. Patients may be happy with their gender-atypical bodies and/or adapt a nonbinary gender identity such as “intersex.” Mental health providers should not assume that patients would benefit from conforming to fit within a gender binary, physically or with respect to gender identity.

Empathic listening is especially important in working with intersex individuals, perhaps particularly with those who have inadvertently discovered their in-

tersex status in adolescence or adulthood, and may have been stigmatized for gender nonconformity or homosexuality, or subjected to irreversible hormonal or surgical treatments consistent with their assigned rather than their experienced gender. Upon discovery of their biological status, such patients may feel betrayed by their parents and physicians, feeling they colluded to keep them in ignorance of their medical condition, damaged their bodies, or punished or stigmatized them for their gendered behaviors. Such patients need empathic validation of their feelings. Assurance that parents and providers had their best intentions at heart, while usually true, is likely to be experienced as an empathic failure and negatively impact the formation of a therapeutic alliance.

As is often seen in many individuals with uncommon medical conditions, many people with intersex conditions experience varying degrees of isolation and loneliness.^{A1} Therefore, linking them to existing intersex support groups by internet or face-to-face meetings can be very beneficial. Despite the emotional relief that support groups can provide, such contacts may sometimes cause additional concerns. For instance, the composition of the group (e.g., the syndromes represented within the group, the personalities of some group members, or the goals of the group) may not meet the individual’s expectations, and the information provided may not always be accurate. Thus, some monitoring of the patient’s experience with the chosen group is recommended.

Hormonal and surgical treatments

As reviewed elsewhere,^{A1} many individuals with both an intersex condition and GD will be agonadal in later adolescence or adulthood, either because they were born that way (e.g., in syndromes involving gonadal dysgenesis) or due to surgery, for instance, for the prevention of gonadal malignancy. In those with intact gonads (especially 46,XX congenital adrenal hyperplasia raised female), loss of fertility may be another issue of concern. Persons who are agonadal are usually on hormone replacement therapy by the time of late adolescence. Cessation of that treatment, change to treatment with hormones congruent with their gender identity, patient education for informed consent, and the monitoring of treatment effects are tasks of the endocrinologist.

Also, the technical aspects of genital surgery are more complex than in patients receiving gender-confirming genital surgeries, who do not have intersex

conditions. Both the external genitalia and the internal reproductive tract in intersex conditions typically differ from what most surgeons are familiar with in transgender patients without these conditions. In addition, many patients with intersex conditions have already undergone one or more genital surgeries by late adolescence. The resulting postsurgical anatomy constitutes an additional challenge for the surgeon performing gender-confirming surgery, and a good sex-functional outcome may be more difficult to achieve.

Mental health providers should also be aware that not all individuals who identify their gender or gender identity as intersex have a somatic intersex condition, and should ensure that those who do have an intersex condition are receiving adequate medical care, including hormones (to prevent osteoporosis) and cancer screenings, as appropriate to their particular condition.^{A3} Without challenging a patient's identity label, this distinction can usually be made by inquiring about the name of the patient's condition, when and how they learned of it, and any history of related surgeries, hormonal replacement, or ongoing follow-up evaluations. If there is any doubt, appropriate referrals should be made to ensure that the patient is receiving adequate follow-up and treatment.

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EXHIBIT 8
WIT: KARASIC
DATE: 5-7-24
CARLA SOARES, CSR



Dan Karasic

February 4, 2017 · 🌐

...

The following is a personal statement, not an official or organizational one, though I am the founder of this Facebook group and chair of the USPATH conference. As some people know, for many years I have been a critic of conversion therapy and pathologization of trans identity. Starting in the 1990's I brought to American Psychiatric Association conferences trans voices critical of the APA. For many years, my views were distinctly in the minority in my field, and I appreciate the support of my trans colleagues in providing encouragement to continue working for change. In 1998 I brought a workshop critical of the APA and the GID diagnosis to the annual APA meeting in Toronto, featuring the fearless Kelley Winters. That year I authored a statement condemning reparative therapy that was submitted by my local branch, the Northern California Psychiatric Society, to the APA leadership, and which was adopted by Board of Directors of the American Psychiatric Association as their first condemnation of reparative therapy. In the early 2000's I edited a book of critiques of the adult and child GID diagnoses, and brought critics of pathologization of trans identity to APA to debate directly those responsible for the DSM. After one memorable symposium, Kelley Winters and I were taken to dinner by Robert Spitzer, a somewhat surreal experience, but one that allowed for frank conversation, including Spitzer's statement of regret to us for having supported conversion therapy.

Over the years, my views at APA went from one without much support, to views that are now popular. I was recently appointed the chair of the APA's Workgroup on Gender Dysphoria, a committee that now has three psychiatrist members who are trans, a quite different composition from the past APA committee Ken Zucker chaired that changed the GID diagnosis to Gender Dysphoria. After Ken was appointed by the APA to chair the GID DSM 5 committee, the APA met in San Francisco, in 2009. Kelley Winters was invited back to speak at a symposium put on by Zucker's APA committee, presenting an opposing view. After the session, I was the lone APA member to step outside the Moscone Center and speak with a bullhorn at the protest of Ken's GID DSM revision committee, at a protest organized by Danni Askini.

Over these decades of opposition to prevailing views, our dissenting views were welcomed, or at least tolerated, in the spirit of the free-wheeling atmosphere of scientific conferences. Opinions, data are put forth and then open to the criticism of our peers. WPATH Symposia have also always operated in this fashion. And over the years, trans affirmative approaches have gained more than a toehold.

USPATH's inaugural conference would clearly have a different balance from the start. A trans affirmative approach is now standard practice in the US, and most time slots in the conference had competing panels of those providing affirmative care to trans kids. I thought Zucker's submissions could be contextualized by this now dominant perspective of trans affirmative care.

However, this conference has a dual mission of being a WPATH scientific conference organized under the procedures long used to organize WPATH international symposia, but also forming the foundation of the formation of USPATH. And this conference and the launch of USPATH is happening under circumstances none of us imagined when organizing the conference, circumstances that demand a solidarity moving forward. The new political climate is a direct threat to the health, the lives of trans people. The most vulnerable of these are trans women of color. My actions, and the actions of our scientific committee, made them and other trans people, as well as the parents and providers of trans kids, feel like WPATH and the organizers of the USPATH conference were deaf to their concerns. For that I apologize. I pledge to do better in the future.



Re: Fw: NYTimes Mag fact-checking

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Date: Tue, 07 Jun 2022 20:16:57 -0400

Thanks, [REDACTED]

My responses are integrated below...

On Tue, Jun 7, 2022, 4:18 PM [REDACTED] wrote:

New set of fact checks below.

Including you [REDACTED] since you're mentioned several times.

Thanks for any guidance!

Best,
[REDACTED]

From: Mark de Silva <[REDACTED]>
Sent: Tuesday, June 7, 2022 7:10 PM
To: [REDACTED]
Subject: Re: NYTimes Mag fact-checking

Hi [REDACTED]

I will look forward to the answers to the questions that are still pending. In the meantime, I have some further questions for WPATH. If you could get answers to these, plus the outstanding ones, by Wednesday morning, that would be ideal. We have to close the story soon.

1. Correct that [REDACTED] was selected by WPATH in 2017 to lead a group of 7 clinicians and researchers to draft a chapter for SOC8 on adolescents? -- [REDACTED] I think this is true.
2. WPATH Standards of Care (SOC) are meant to set the guidelines for transgender health care worldwide? -- [REDACTED] Yes, not specific to any healthcare delivery system, but focused on transgender health as a human/universal concept/need.
3. True that after WPATH was formed in 1979, transgender activists gained increasing influence in the organization? -- [REDACTED] Professionals who happened to be trans people joined the organization; they were not necessarily activists. Some who recognized that a medical association was important for institutionalizing transgender health were interested in strengthening the association functionally and clarifying the SOC, while others took more aggressive positions as clinicians because they saw how interpretations of the SOC were weaponized against their clients/patients in specific regions or environments. Different approaches are present throughout the membership. The Board tries to balance the values that are expressed through the SOC and good association management principles.

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EXHIBIT	9
WIT:	KARASIC
DATE:	5-7-24
CARLA SOARES, CSR	

BOEAL_WPATH_064098

4. Yet these activists did not contribute to formulating the SOC and its updates over the years? --
[REDACTED] No. Transgender-identified professionals have been given a voice, to varying degrees since version 5. The first 4 versions were very spare. As more trans professionals joined the association and participated in association committees and activities, and their opinions and experience was recognized as credible and respectable, these professionals gained more access to being able to contribute to the SOC. Note that the association membership application does not ask an applicant's gender identity or personal transgender history. It only asks for professional qualifications, which are vetted (right, [REDACTED])

5. Fair to say that a good number of these activists (rightly or wrongly) view SOC criteria as imposing excessively restrictive, paternalistic, and even demeaning barriers to transgender treatment? [REDACTED] No. There are some members who are clinicians who work with marginalized groups within the transgender community who would like to see standards relaxed in many ways, but in the U.S., it is also true that insurance plans and clinical institutions overlay their own interpretations or additional rules on transgender care and some clinicians and patients/clients blame WPATH for this when these systems/processes are outside WPATH's influence or control. Activists outside of WPATH blame WPATH, and a lot of misinformation about the SOC is shared throughout the trans community.

We also have questions about a protest in February 2017 [[see video: <https://www.youtube.com/watch?v=rfqG5TaCzskj>]]. We have spoken with [REDACTED] and he believes it is generally accurate, but we would also like see if WPATH sees anything inaccurate here:

6. In February 2017, the inaugural conference of USPATH--the US branch of WPATH--was held in Los Angeles? -- [REDACTED] Yes; is branch the appropriate term, [REDACTED]

7. At this conference, protesters interrupted and picketed a panel featuring [REDACTED]? Yes. Most of the protesters were not WPATH members.

8. That evening of the protest, at a meeting with the conference leaders, a group of activists led by transgender women of color read aloud a statement in which they said the "entire institution of WPATH" was "violently exclusionary" because it "remains grounded in 'cis-normativity and trans exclusion.'"? [[QUOTES ARE FROM VIDEO]] -- [REDACTED] Yes. These were Los Angeles activists who had been given free admission to the conference to recognize their community-based healthcare advocacy, and to help them engage with national trans health leaders and researchers who created much of the literature in the field. Some trans-identified clinicians who supported them also attended the meeting where the statement was read.

9. The group asked for cancellation of [REDACTED] appearance on a second upcoming panel? -- [REDACTED] Yes.

10. [REDACTED], who was on the board at the time, agreed to the demand to cancel [REDACTED] appearance on the second panel/symposium? [REDACTED] did not appear further at that 2017 USPATH conference? -- [REDACTED] Yes. This was not my sole decision; I delivered the consensus of the officers present with regret and sadness, because we recognized we could not guarantee his safety.

11. [REDACTED] told the protestors: 'We are very, very sorry.' -- [REDACTED] Yes, true, because (for me) we were sorry they felt this way.

On Tue, Jun 7, 2022 at 3:36 PM [REDACTED] wrote:
Sounds good. Thanks, Mark.

Karasic Depo. Ex. 10:

Video Clip:

07:45 – 10:15:

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Karasic Depo. Ex. 11:

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Karasic Depo. Ex. 12:

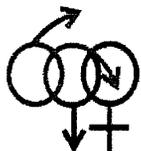
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EXHIBIT 13
WIT: KARASIK
DATE: 5-7-24
CARLA SOARES, CSR

A message from the WPATH Executive Committee

On February 03, 2017 a WPATH member presented at the USPATH conference on a clinical modality that WPATH opposes. A conference attendee disrupted the offensive session due to this act of negligence. Later that day the same presenter was asked to leave by a group of professionals attending the conference. Campus security responded by asking the registered participants to leave and threatened to call the police. This group included trans women of color and gender non-binary persons of color all of which are already consistently policed in society. WPATH regrets that this incident occurred, and our staff and the USPATH conference organizers are deeply sorry for the distress, anxiety, and discomfort this unfortunate incident created for our colleagues and especially those that are trans and gender non-binary people. We are committed to providing a safe and welcoming environment at our scientific meetings, and we are implementing further procedures and engaged in ongoing communications with trans community to not only ensure this kind of incident does not happen in the future, but also that transgender communities, particularly trans communities of color are meaningfully involved in future conference planning.

Through our efforts to address these issues, we have had a series of meetings with a diverse representation of trans community members that work in the field of trans health, including people of color who participated in the USPATH conference, and local trans community leaders. The agreements made during these meetings include the following:

- In the future we will work with local trans communities when we hold conferences in various locations.
- WPATH and USPATH boards will intentionally include trans people of color, especially trans women of color, and other minorities in the ongoing work of WPATH. We are committed to working with trans people of color to guide us in our growth and process. Moving forward, USPATH and WPATH embraces the opportunity to have our colleagues who are trans and people of color involved in every aspect of the organization as elected leadership, in committee and task force leadership, and in advisory positions that will make WPATH more relevant to the field of trans health around the world.
- WPATH is committed to increasing access to membership, added member benefits and mentorship opportunities for all students, especially those who are trans identified and/ or students of color.
- A scholarship system will be created and implemented to ensure participation that is representative of the diversity of providers in the trans health field.
- 2 seats on the SOC (Standards of Care) 8 creation and revision committees will be reserved for trans people of color.
- WPATH will develop and present a webinar that will include detailed information about the structure and voting process of WPATH and USPATH. This will allow for those interested in participating in and/or joining WPATH to have a better sense of how to do so.

We look forward as an organization to the great possibilities that lay ahead. This transformative process will help shape and change the landscape of the livelihood and health of trans people in the United States and globally.

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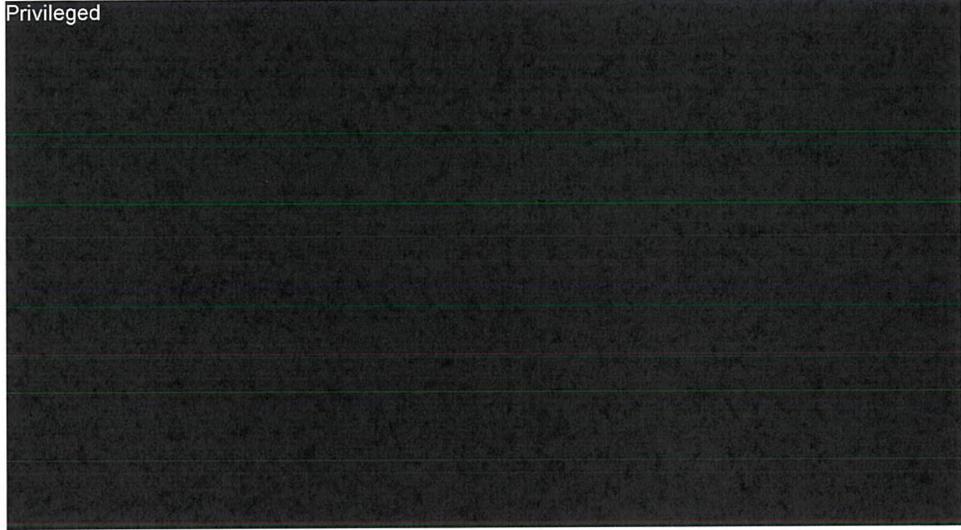
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[Contact Us \(https://web.archive.org/web/20170214131508/http://www.wpath.org/site_page.cfm?pk_association_webpage_menu=3927\)](https://web.archive.org/web/20170214131508/http://www.wpath.org/site_page.cfm?pk_association_webpage_menu=3927)
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Fwd: A message from the WPATH Executive Committee (re USPATH meeting, Febr. 3, 2017)

Privileged



----- Forwarded message -----

From: [REDACTED]
Date: Mon, Feb 13, 2017 at 8:49 AM
Subject: A message from the WPATH Executive Committee (re USPATH meeting, Febr. 3, 2017)
To: [REDACTED]

Cc: Dan Karasic (karasic@gmail.com) <karasic@gmail.com> [REDACTED]

Dear Executive Committee:

I think it is a good idea for WPATH to "ensure participation that is representative of the diversity of providers in the trans health field."

I am concerned, however, that WPATH's commitment "to providing a safe and welcoming environment at our scientific meetings" was not met at this month's USPATH meeting in L.A.



Confidential - Subject to Protective Order

BOEAL_KARASIC_000008

The Mini-Symposium entitled "Development of Gender Variations: Features and Factors" that I convened and chaired was interrupted twice by a small group of protesters. A few minutes into my introductory remarks, an attendee interrupted me by taking a position in front of me and yelling into the audience, with some support from others, then leaving after a while with a group of a dozen or so followers, while the overwhelming majority of the audience remained in the room. Near the end of the session, while I was moderating the Q&A for [REDACTED] lecture, another disruption was staged by one person in the back of the audience.

Because of the time used up by the first disruption and related questions from the audience later, I decided to give the first two speakers, [REDACTED] ("Gender dysphoria and dissociative gender identity disorder combined") and [REDACTED] ("Gender variations during childhood") more time for their presentations and Q&A sections and was, therefore, unable to present my own lecture ("Gender Variations in Somatic Intersexuality", which also included a summary of the fourth lecture by [REDACTED], who was unable to attend). Thus, the protests certainly interfered with the presentation of the full range of data and issues covered in the Mini-Symposium's abstract.

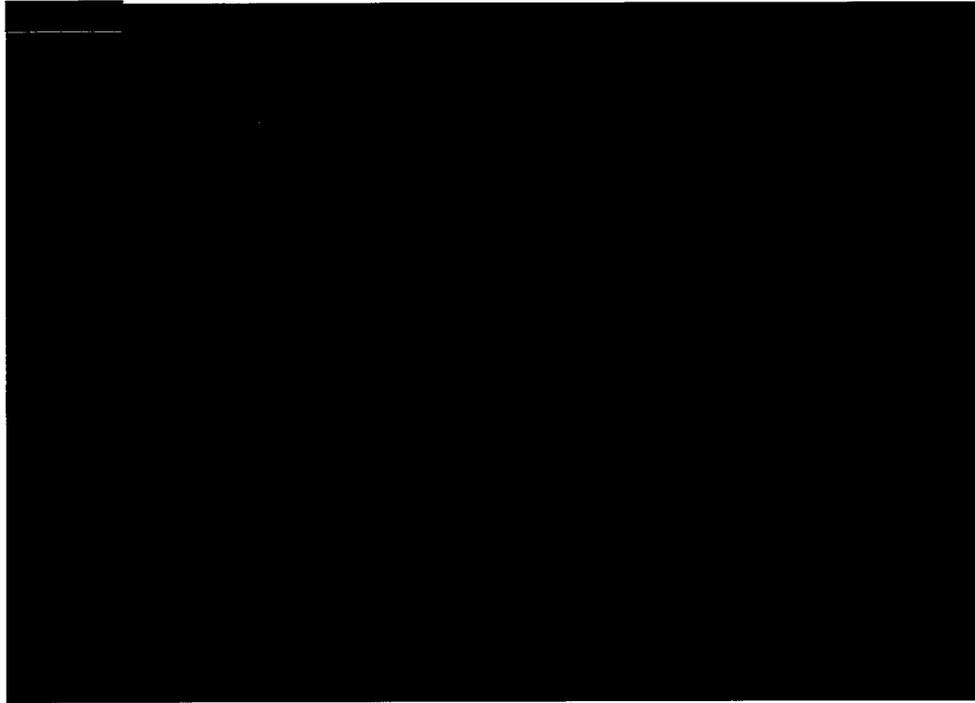
From the first paragraph in your statement I conclude that no one from the Executive Committee attended this Mini-Symposium, because otherwise you would have noticed that the apparently primary target of the protesters, [REDACTED], did not address a "clinical modality", but focused on follow-up studies of gender development in children with gender problems. By misrepresenting the content of the session and labelling the entire session as "offensive", "due to this act of negligence" (a vague formulation that also needs explanation), you are aligning yourselves with the small group of protesters, insult the speakers involved, and violate a primary condition of a scientific meeting, namely the open and constructive exchange of ideas, which is particularly important in an area of research as emotion-laden as gender.

I hope you will correct your statement accordingly.

As similar incidents occurred already in two symposia I was involved with at the recent WPATH meeting in Amsterdam, I think WPATH's leadership needs to become more proactive in furthering a constructive style of scientific exchange – rather than inhibiting scientific exchange by suppressing presentations as you did in L.A., when you cancelled [REDACTED] Mini-Symposium on Febr. 4. In the U.S., we are not living in a dictatorship (at least not yet), and if WPATH intends to continue as a scientific society, it must be able to provide "a safe and welcoming environment" for the entire "diversity of providers".

In a professional society dealing with highly emotional issues, protests are to be expected and should not be outlawed. However, we obviously need to find a better balance between protesting and constructive scientific exchange, and explicit guidelines by the Executive Committee, perhaps to be distributed to every meeting registrant in the future. This may be a task appropriate for the Bylaws, Policies & Procedures Committee; that's why I cc'd its chairperson, [REDACTED].

In the hope that my comments will support a constructive discussion among Executive-Committee members of potential solutions to the problem mentioned, with best regards,



Confidential - Subject to Protective Order

BOEAL_KARASIC_000010

Fwd: A message from the WPATH Executive Committee

From: [REDACTED]
To: WPATH EC <wpathec@wpath.org>
Date: Sun, 12 Feb 2017 23:20:45 -0500
Attachments: USPATH1.2017.FINAL.ppt (2.58 MB); ATT00001.htm (168 bytes)

Sent from my iPhone

Begin forwarded message:

From: [REDACTED] >>
To: [REDACTED]
Subject: A message from the WPATH Executive Committee

I have read the above-titled message on the WPATH website.

Since you are [REDACTED] I would ask that you share this message with [REDACTED]

1. The first sentence reads: "On February 3, 2017 a WPATH member [REDACTED] presented at the USPATH conference on a clinical modality that WPATH opposes."

Comment: Let me begin by saying that I do not know if you or [REDACTED] were at the Symposium (organized and chaired by [REDACTED]). The sentence simply astonishes me. My talk was not at all about any "clinical modality"—it was a summary of follow-up studies of children diagnosed with GID (the diagnostic label that was in place for a number of the follow-up studies) or children subthreshold for the diagnosis. I also presented data on predictors of follow-up status (persistence vs. desistance), including new data that I presented for the first time during this talk. I attach the POWERPOINT presentation that I gave.

2. The third sentence reads: "Later that day the same presenter was asked to leave by a group of professionals attending the conference."

Comment: This sentence also simply astonishes me. No one asked me to leave. What did happen is on the evening of February 3 I was called (I think the person I spoke with was [REDACTED] although perhaps I have the name wrong—perhaps you were in the room at the time the call was made) to inform me that the second Symposium I was to be in on Saturday (along with [REDACTED]) was cancelled because the leadership at the meeting was concerned about safety issues. This symposium was going to discuss several therapeutic models currently in use with pre-pubertal children (labeled as "gender diverse" in the title of the cancelled Symposium). I accepted this decision, as I certainly had no desire for audience members to attend the Symposium if their physical safety was at risk.

I would, therefore, request that the EC issue a correction to both of these sentences, which are inaccurate and misleading.

3. There is, of course, a broader issue at stake here. At WPATH in Amsterdam last June, activists disrupted a Symposium on DSDs and defaced a poster. I find it remarkable that the leadership of WPATH has remained silent about this. If there cannot be meaningful dialogue about complex issues at WPATH or USPATH, how can the organization consider itself to be "Professional"?

I look forward to hearing from you.

EXHIBIT 15
WIT: KARASIC
DATE: 6-7-14
CARLA SOARES, CSR

CONFIDENTIAL – SUBJECT TO PROTECTIVE ORDER

BOEAL_WPATH_101671

[REDACTED]

email: [REDACTED]

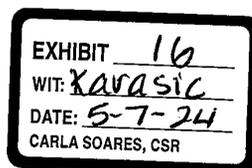
[REDACTED]

email: [REDACTED]

[REDACTED]

We feel that this apology is insufficient and does not sincerely and sufficiently address our demands. Please see the recommendations below.

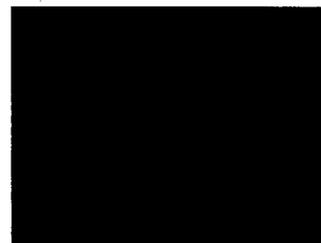
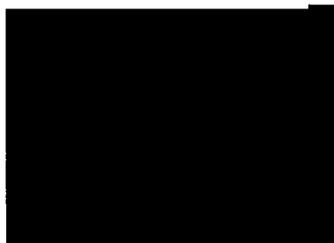
1. This letter fails to include an apology for the invitation of Kenneth Zucker to present his research on conversion therapy for transgender youth, which was clearly stated by us in our meeting with the Board last night as a high priority demand of ours, your intentional (at this point) exclusion of this is cause for additional concern. We have been advised by our attorney not to post anything on the WPATH website that names Ken Zucker. We called him last night and told him we were cancelling the session where he was to appear with 3 other presenters, who were also informed that they would also not be allowed to present (as trans-positive practitioners and researchers, the other 3 presenters had planned to rebut Zucker's theories, and they were disappointed because they had spent a great deal of time in preparation). We have posted the cancellation on the door, and we have communicated verbally with everyone who asks about the cancellation. I also want to make clear that Ken Zucker was not "invited" to present: Both of the sessions he was participating in were submitted as "mini-symposia" with multiple presenters associated with the abstract. The Abstracts were reviewed by both cis and trans peers in the discipline of the presenters, and both received very high scores. As a result, the mini-symposia were accepted for presentation. The only invited speakers were CA Insurance Commissioner Jones and HHS LGBT representative Elliot Kennedy, and no speakers were paid to be here.
2. This statement fails to include the multiple people and range of identities that were affected by the violence that Zucker and WPATH allowed and perpetuated. Did you want the affected people's names to be mentioned? It would be helpful to me if you could provide the range of identities that should be listed.
3. Acknowledgement of the policing of trans community and the willful perpetuation of the policing of trans communities, belonging to a long legacy of racist and transphobic violence against our communities. I do understand this, and I empathize. I can include this for sure.
4. Calling security on transgender conference participants is not being seen by us as an "anonymous" incident, this further minimizes not only the experiences we actually faced, but also the responsibility of the board and the management agency to perform due diligence in screening, training, and informing staff and security on best practices and expectations throughout the duration of the conference. We contacted the hotel and the campus security department to see if they had any knowledge about who made the request for them to come to the Luskin Center. Both said they had no record of who called. The hotel's security policy states that they do not disclose any information about security incidents, and because nothing happened requiring security action there is no written report on file at the campus security office. As such, I can only say it was an anonymous request that brought security to the hotel.
5. "The security staff apologized to the trans people and to WPATH staff." -.... We are professionals, attending the conference, transgender or not. Again highlighting our value as professionals and not minimizing our experiences to our identities as transgender individuals. I understand that you are professionals; I was only trying to emphasize that the security people were apologetic to the people who they had surrounded, and that it was WPATH staff who sent them away. I can certainly rephrase to emphasize your collective professionalism.
6. Instead of simply putting the words "we apologize" can you give specific examples as to what exactly you are apologizing for, how you understand the implications of your actions, and your specific resolutions to addressing our demands and concerns to ensure that this never happens again, containing the inclusion of transgender women of color in the fabric of WPATHs planning processes. Yes. Our staff has embraced



the opportunity to partake in sensitivity training, and we look forward to speaking with you on Sunday afternoon to discuss next steps.

7. Being intentional about creating a safe space for transgender professionals and community for the planning of all future conferences and events. Yes! No worries!! That's our intention for sure!!

Please revisit our list of demands and adjust your apology so that it is reflective of all of them. The actions of USPATH/WPATH and insincere apology does not align with WPATH's vision, which is to promote the health, respect, and equality for transgender, transsexual and gender-variant people in all cultural settings. We are very sincere in our apology. As a formal statement, usually there isn't a lot of detail. We assure you we have learned from this situation, and we are truly excited to partner with you and your colleagues to make sure this never happens again, and that USPATH in particular will be more adept in meeting the needs of ALL our US members.



**IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF ALABAMA
NORTHERN DIVISION**

BRIANNA BOE, individually and on
behalf of her minor son, MICHAEL BOE;
et al.,

Plaintiffs,

and

UNITED STATES OF AMERICA,

Plaintiff-Intervenor,

v.

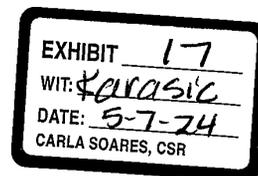
STEVE MARSHALL, in his official
capacity as Attorney General of the State
of Alabama; *et al.*,

Defendants.

Case No. 2:22-cv-00184-LCB-CWB

Honorable Liles C. Burke

PRIVATE PLAINTIFFS' SUPPLEMENTAL
RULE 26 DISCLOSURES



Private Plaintiffs submit the following supplemental disclosures pursuant to Federal Rule of Civil Procedure 26(a)(1)(A):

- A. The name and, if known, the address and telephone number of each individual likely to have discoverable information—along with the subjects of that information—that the disclosing party may use to support its claims or defenses, unless the use would be solely for impeachment.**

In addition to witnesses previously disclosed, Private Plaintiffs identify the following:

1. Dr. Marci Bowers

Dr. Bowers is the President of the World Professional Association for Transgender Health (WPATH) and is expected to provide testimony regarding the development and finalization of the Standards of Care Version 8.

Dr. Bowers may be contacted through counsel:

Jean Veta
Cortlin Lannin
COVINGTON & BURLING
Salesforce Tower
415 Mission Street, Suite 5400
San Francisco, CA 94105
(415) 591-7078
clannin@cov.com

2. Dr. Eli Coleman

Dr. Coleman was the chair of the WPATH Standards of Care Version 8 (SOC8) and part of the lead evidence team. He is expected to testify regarding the

development and implementation of the Delphi process that served as framework for developing the SOC8 in addition to topics relating to the development and finalization of SOC8.

Dr. Coleman may be contacted through counsel:

Jean Veta
Cortlin Lannin
COVINGTON & BURLING
Salesforce Tower
415 Mission Street, Suite 5400
San Francisco, CA 94105
(415) 591-7078
clannin@cov.com

3. Dr. Dan Karasic

Dr. Karasic is Professor Emeritus of Psychiatry at the University of California-San Francisco Weill Institute for Neurosciences. He sat on the WPATH Board of Directors and was the lead author of the mental health chapter of SOC8. He was also a coauthor of SOC 7. Dr. Karasic is expected to testify regarding the work of the chapter groups to finalize the recommendations and accompanying chapter text on the SOC8. He is also expected to testify in response to claims that WPATH limited debate and robust exchange of ideas across the organization and at conferences hosted by affiliate organizations.

Dr. Karasic may be contacted through counsel:

Jean Veta
Cortlin Lannin
COVINGTON & BURLING
Salesforce Tower
415 Mission Street, Suite 5400
San Francisco, CA 94105
(415) 591-7078
clannin@cov.com

/s/ Amie A. Vague

Melody H. Eagan

Jeffrey P. Doss

Amie A. Vague

LIGHTFOOT, FRANKLIN & WHITE LLC

The Clark Building

400 20th Street North

Birmingham, AL 35203

205.581.0700

meagan@lightfootlaw.com

jdoss@lightfootlaw.com

avague@lightfootlaw.com

J. Andrew Pratt (ASB-3507-J56P)

Misty L. Peterson (GA Bar No. 243715) (*pro hac vice*)

Adam Reinke (GA Bar No. 510426) (*pro hac vice*)

KING & SPALDING LLP

1180 Peachtree Street Northeast, Suite 1600

Atlanta, GA 30309

404.572.4600

apratt@kslaw.com

mpeterson@kslaw.com

areinke@kslaw.com

Brent P. Ray (IL Bar No. 6291911) (*pro hac vice*)

Abigail Hoverman Terry (IL Bar No. 6327057)

(*pro hac vice*)

KING & SPALDING LLP

110 North Wacker Drive, Suite 3800

Chicago, IL 60606

312.995.6333

bray@kslaw.com

aterry@kslaw.com

Rachel H. Berg (NY Bar No. RH4148) (*pro hac vice*)

NATIONAL CENTER FOR LESBIAN RIGHTS

870 Market Street, Suite 370

San Francisco, CA 94102

415.392.6257

rberg@nclrights.org

Jennifer L. Levi (MA Bar No. 562298) (*pro hac vice*)

GLBTQ LEGAL ADVOCATES & DEFENDERS

18 Tremont, Suite 950

Boston, MA 02108

617.426.1350

jlevi@glad.org

Scott D. McCoy (FL Bar No. 1004965) (*pro hac vice*)

SOUTHERN POVERTY LAW CENTER

P.O. Box 12463

Miami, FL 33101

334.224.4309

scott.mccoy@splcenter.org

Diego A. Soto (AL Bar No. ASB-3626-Y61S)
SOUTHERN POVERTY LAW CENTER
400 Washington Avenue
Montgomery, AL 36104
334.604.1414
diego.soto@splcenter.org

Jessica L. Stone (GA Bar No. 275567) (*pro hac
vice*)
SOUTHERN POVERTY LAW CENTER
150 E. Ponce de Leon Ave., Suite 340
Decatur, GA 30030
404.221.5837
jessica.stone@splcenter.org

Cynthia Weaver (NY Bar No. 5091848) (*pro hac
vice*)
HUMAN RIGHTS CAMPAIGN FOUNDATION
1640 Rhode Island Ave., NW
Washington, DC 20036
202.628.4160
cynthia.weaver@hrc.org

CERTIFICATE OF SERVICE

I hereby certify that on this, the 28th day of March, 2024, I served the foregoing via electronic mail and/or U.S. Mail on all counsel of record.

/s/ Amie A. Vague

Of Counsel

Re: Re: the imminent release of the SOC8 - and please be so kind as to give us your support or endorsement

From: Asa Radix <asa@wpath.org>
To: walterbouman@wpath.org
Cc: WPATH EC 2022 <wpathec2022@wpath.org>
Date: Tue, 14 Jun 2022 16:51:52 -0400

I don't think that they endorse any guidelines. The best people to reach out to would be orgs such as the American College of Physicians. The AMA has no power in the USA except lobbying for higher reimbursement through congress.

On Tue, Jun 14, 2022, 4:32 PM Walter Bouman <wbouman@wpath.org> wrote:

Dear Friends,

I just wanted to share this email trail with you.

It annoyed the hell out of me, and I had to stop my impulsivity to not respond with a very very rude email response to the AMA and its current custodians (probably some white cisgender heterosexual hillbillies from nowhere..... (please delete this quote).....

They can do SO MUCH BETTER THAN THIS AND CLEARLY THEY HAVE THOUGHT ABOUT THIS ISSUE A PRIORI - given the very very swift response. Not even wanting to read the SOC8.....

In the context of the previous AMA responses and official statements regarding TGD healthcare (which were quite in keeping with modern medicine and medical ethics) this is simply not good enough and I would very much like to spend a little bit of time together tomorrow to give a response to them in a way that (like AASECT did) they cannot simply ignore.....

It is time to stand up and fight for what we believe in.....

Interestingly, the response to asking colleagues around the world (and of course the world is far far more bigger than the USA) for their support for the SOC8 has been overwhelmingly positive, so..... let's stick to finding confirmation that our colleagues in the USA are in agreement with the values we profess.

At the end of the day, we all committed ourself to the same Hippocratic Oath.

Speak tomorrow,

Warmest,

Walter

Dr Walter Pierre Bouman MD MA MSc UKCPreg PhD

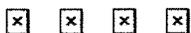
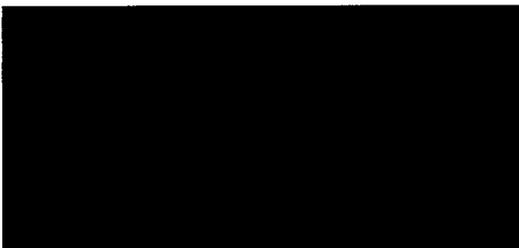
Consultant in Trans Health/Honorary Professor School of Medicine, University of Nottingham, UK

President World Professional Association for Transgender Health (WPATH)

Editor-in-Chief *International Journal of Transgender Health* (Impact Factor 2020 = 5.333)



Nottingham National Centre for Transgender Health



----- Original Message -----

Re: the imminent release of the SOC8 - and please be so kind as to give us your support or endorsement
Subject: or endorsement
Date: 2022-06-13 22:11
From: [redacted], Walter Bouman
To: [redacted]
Copy: [redacted]

Nice response....thanks [redacted]



Please respect the confidentiality of this email

From: [REDACTED]
Date: Monday, June 13, 2022 at 4:04 PM
To: Walter Bouman [REDACTED]
Cc: [REDACTED]
Subject: RE: the imminent release of the SOC8 - and please be so kind as to give us your support or endorsement

[REDACTED]

Thank you for your outreach to the American Medical Association (AMA); [REDACTED] asked me to reply on their behalf. While we appreciate your efforts on the SOC-8, the AMA does not endorse or support standards of care--that falls outside of our expertise. Thus, we are unable to respond affirmatively to your request, but wish you the best in your efforts to assist transgender and gender diverse people.

Sincerely,

[REDACTED]

From: Walter Bouman [REDACTED]
Sent: Monday, June 13, 2022 3:33 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: the imminent release of the SOC8 - and please be so kind as to give us your support or endorsement

[Warning External Email]

This email is meant to be read by [REDACTED]

Please please do re-direct this email to your President and CEO as it is important!!

Dear Colleagues,

I am writing to you as President and CEO of the American Medical Association on behalf of the World Professional Association for Transgender Health (WPATH), as its President.

After more than 4 years, we are ready to publish the next version of the WPATH Standards of Care version 8 (SOC-8).

Aim: The overall goal of SOC-8 is to provide clinical guidance for health care professionals to assist transgender and gender diverse (TGD) people with safe and effective pathways to achieving lasting personal comfort with their gendered selves, in order to optimize their overall physical health, psychological well-being, and self-fulfillment.

Methods: The SOC-8 is based on the best available science and expert professional consensus in transgender health. International professionals and stakeholders were selected to serve on the SOC-8 committee. Recommendation statements were developed following independent systematic literature reviews, where available, background reviews and experts' opinions. Grading of recommendations were based on available evidence supporting interventions, a discussion of risks and harms, as well as feasibility and acceptability within different contexts and country settings.

The reason I am writing to you is this:

We, as WPATH would be most grateful if the AMA would be willing to support or endorse the SOC-8.

If you agree to this, we will send you a link to the SOC8 (which is currently under embargo, and currently only ADM Dr Rachel Levine and her Department (HHS/OASH) in the US have access to the full document) and we will provide access following the signing of a non-disclosure document.

Please let me know whether you are willing to do this. There is no hard timeline for this, but something in writing before the 1st August 2022 would be most appreciated.

I am - of course - always willing to explain our request in more detail, both via email or via an online meeting at your convenience.

With kind regards, and looking forward to your response, to better the lives of trans and gender diverse people globally,

Walter

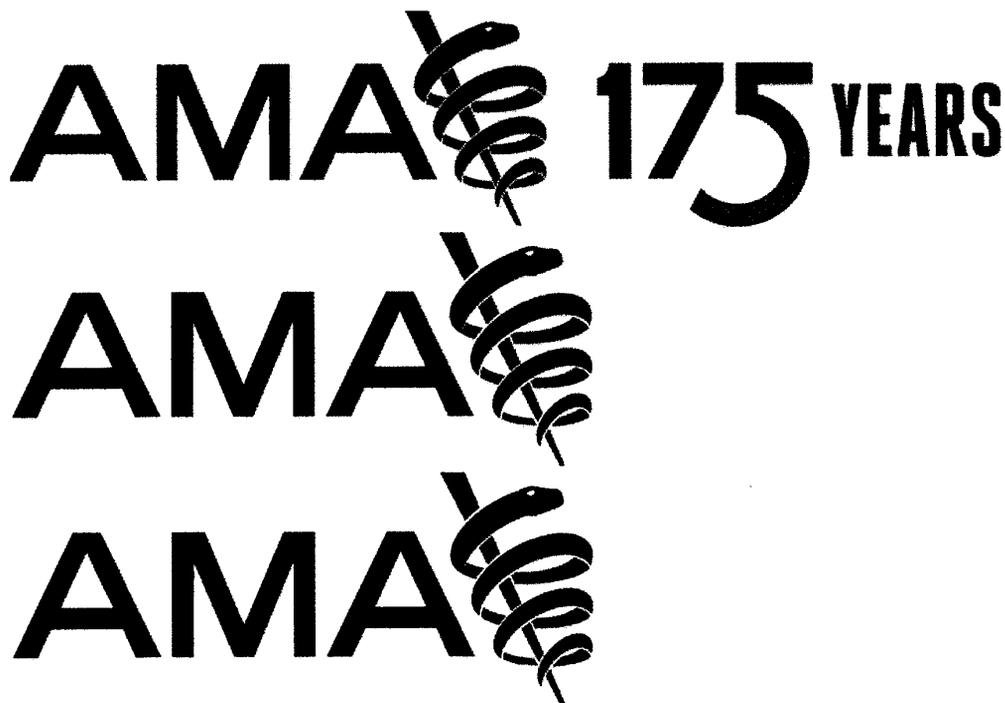
Dr Walter Pierre Bouman MD MA MSc UKCPreg PhD

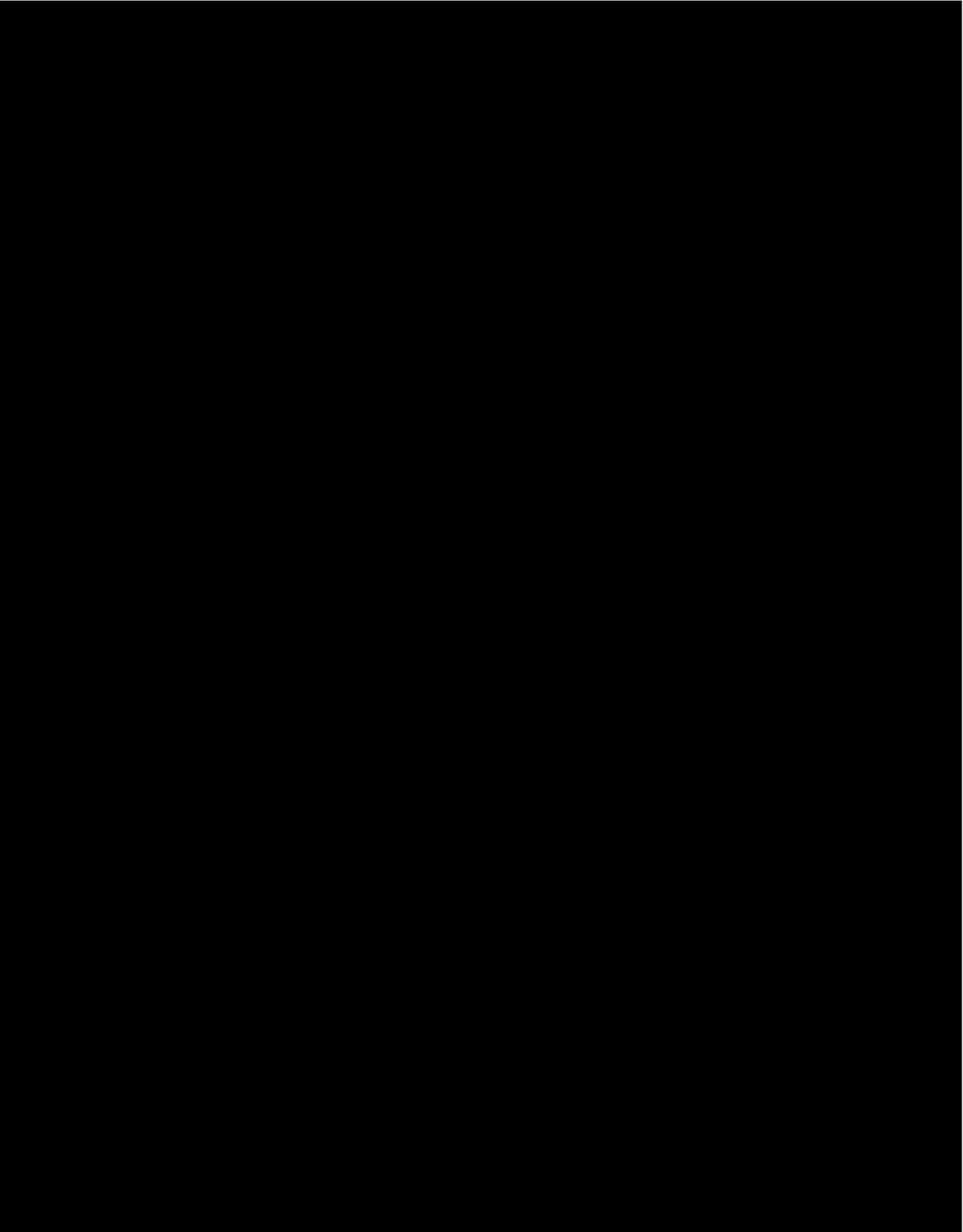
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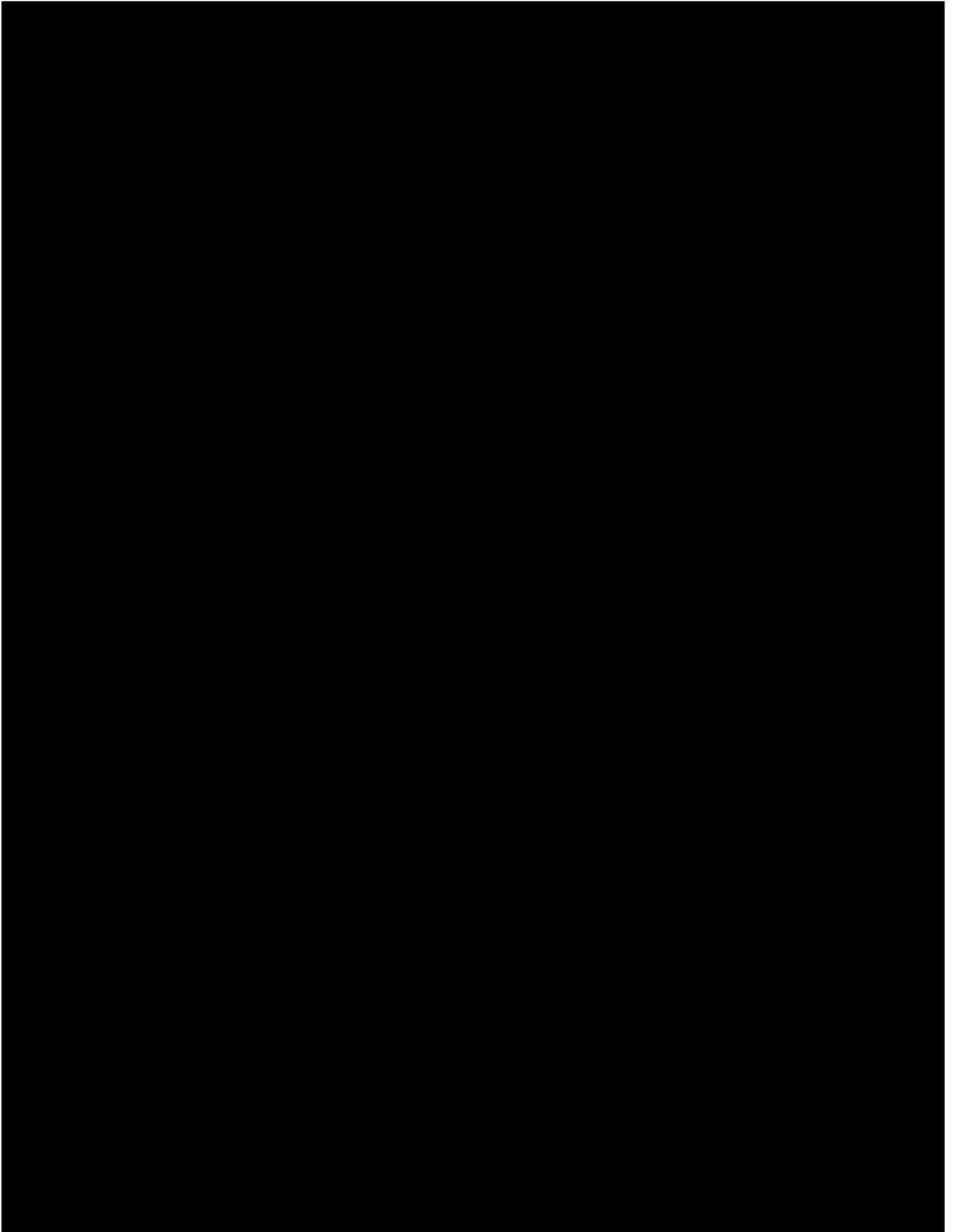
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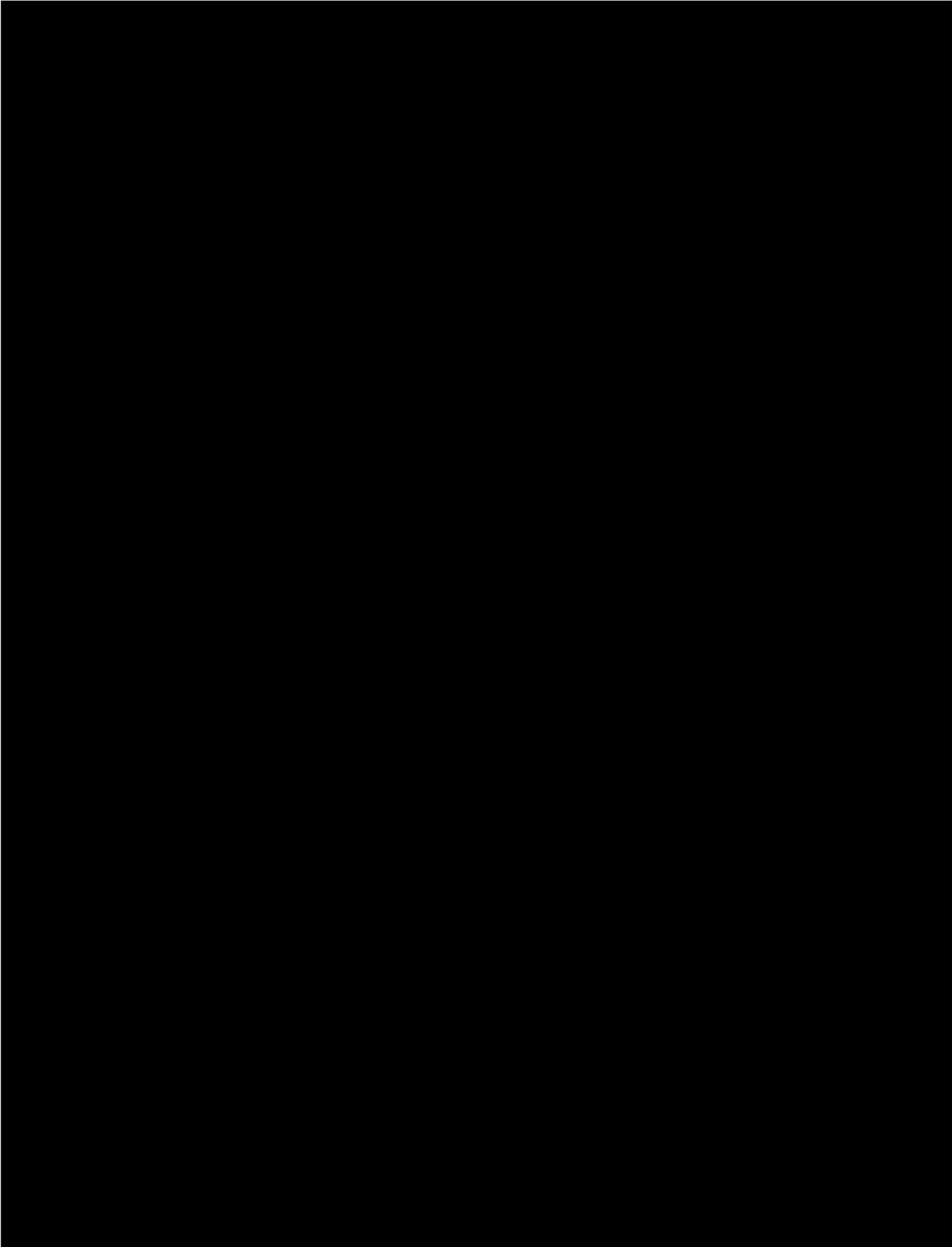
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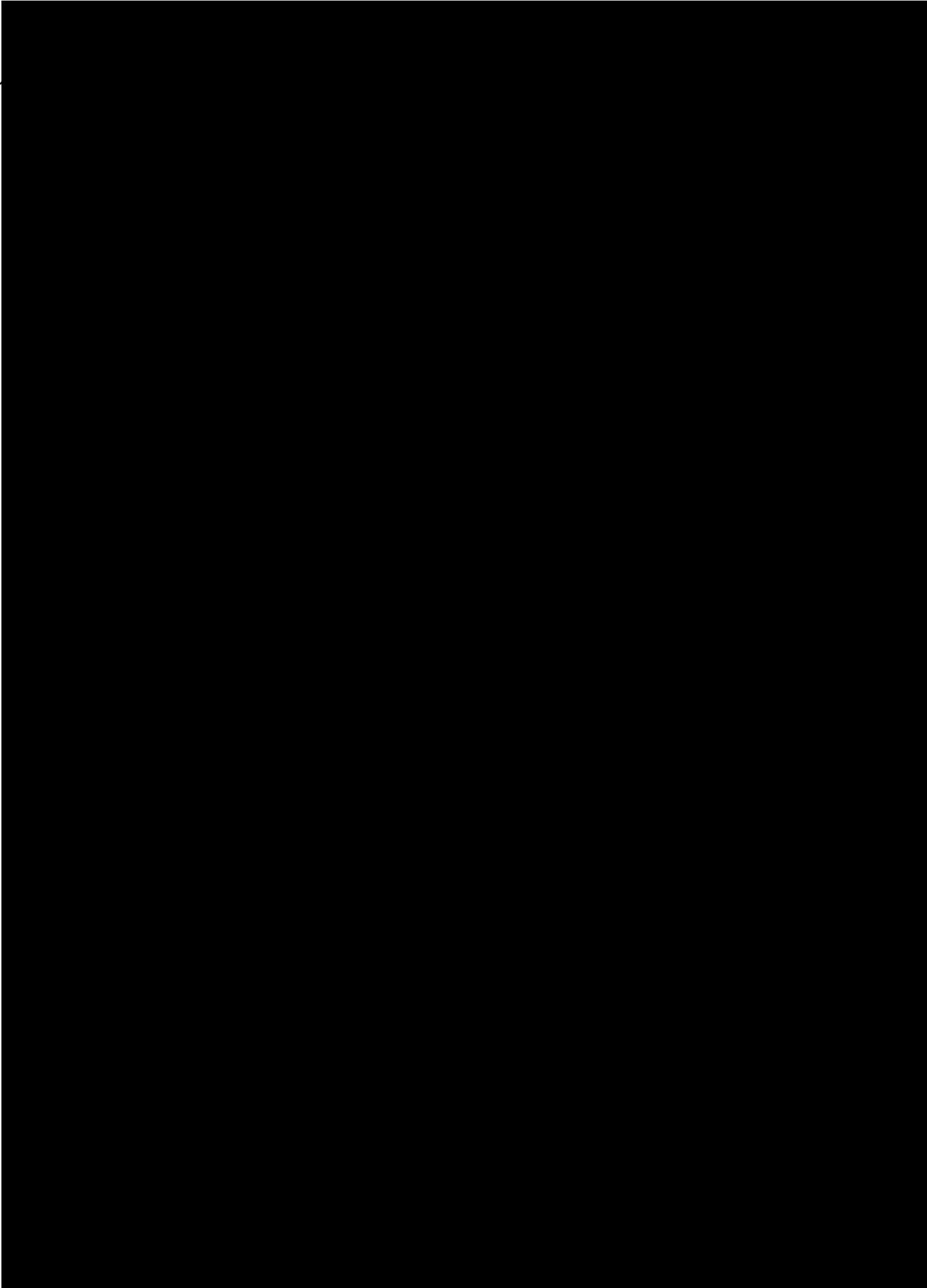
Nottingham National Centre for Transgender Health

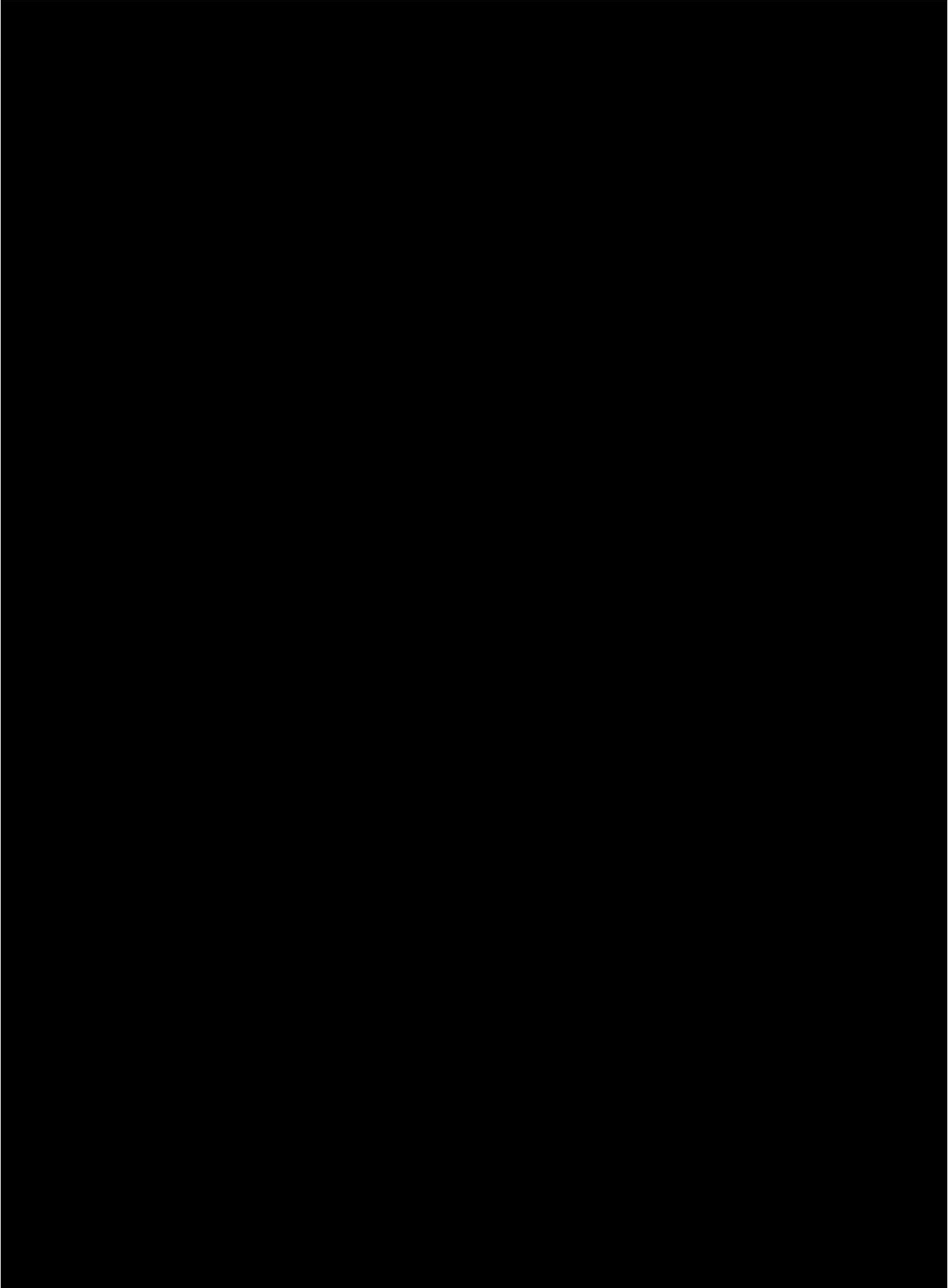


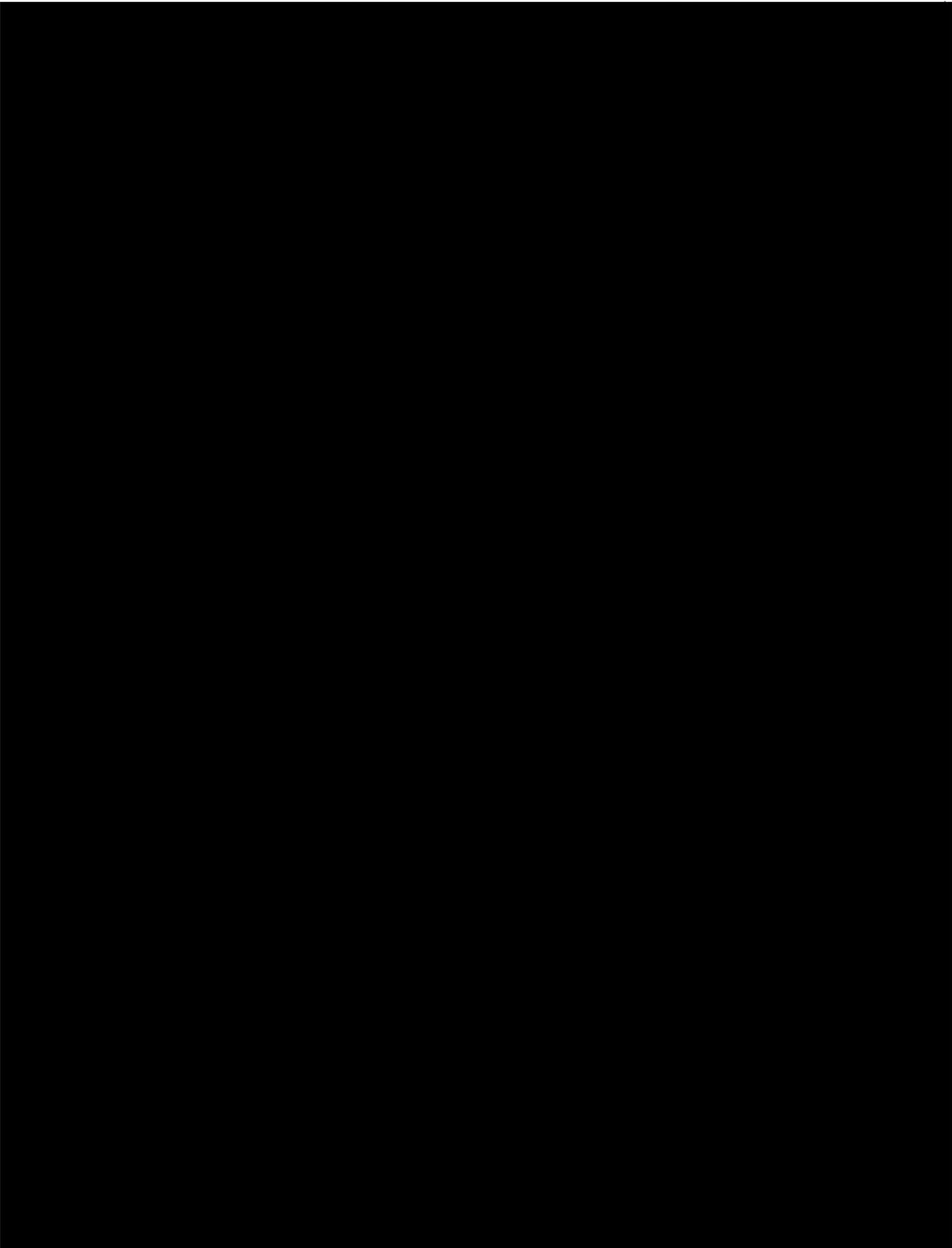


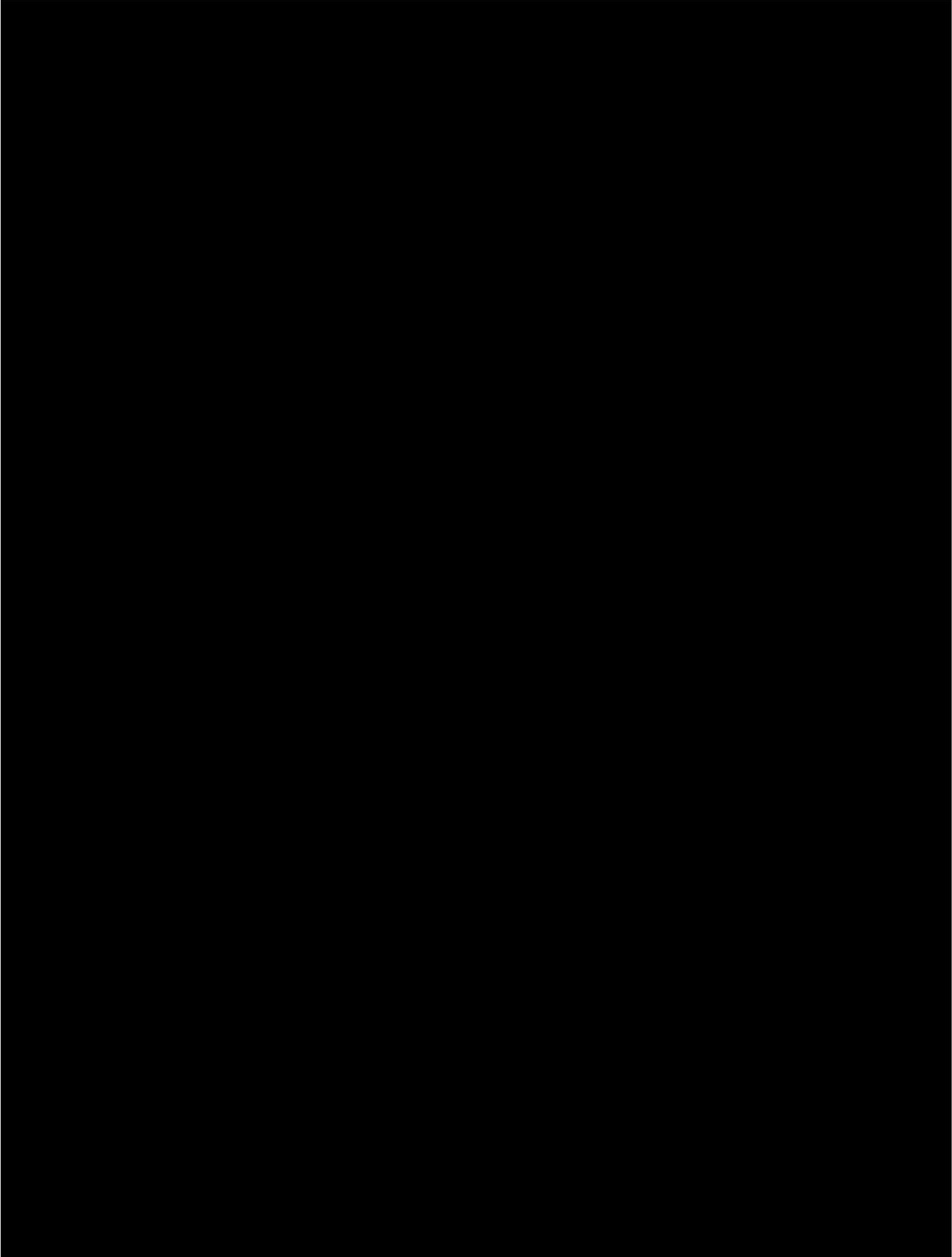


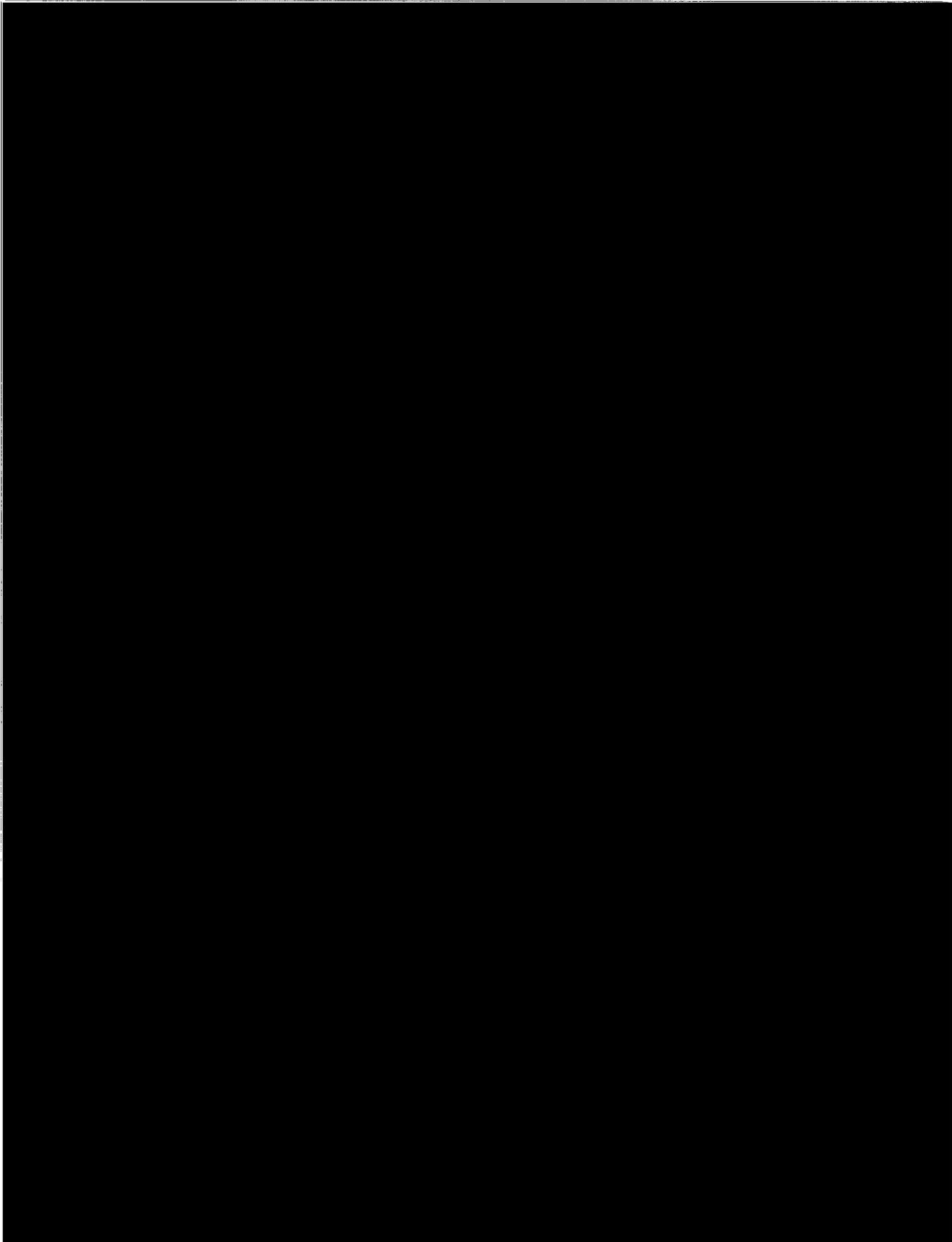


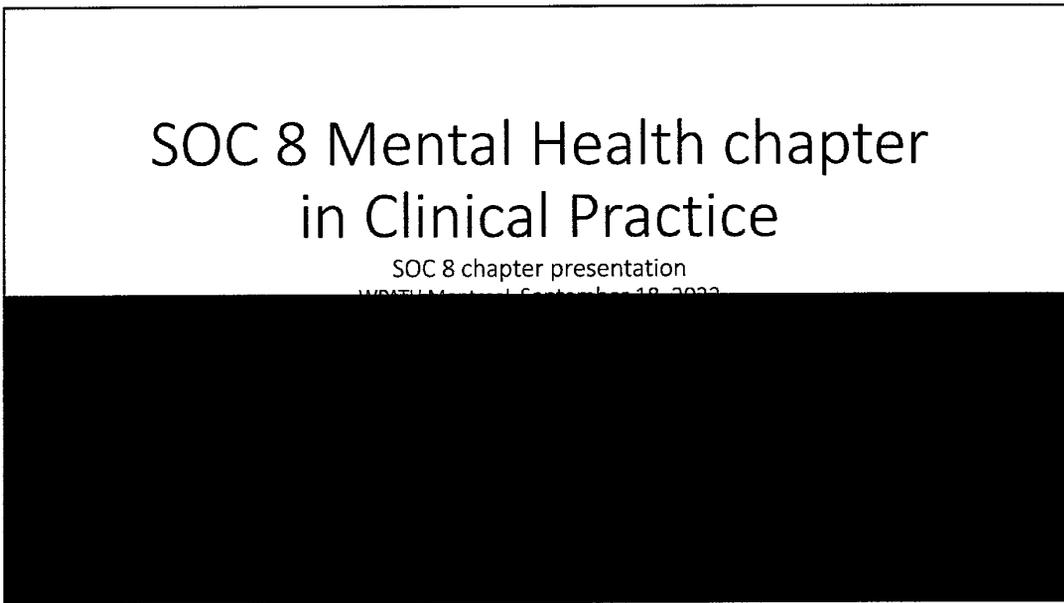




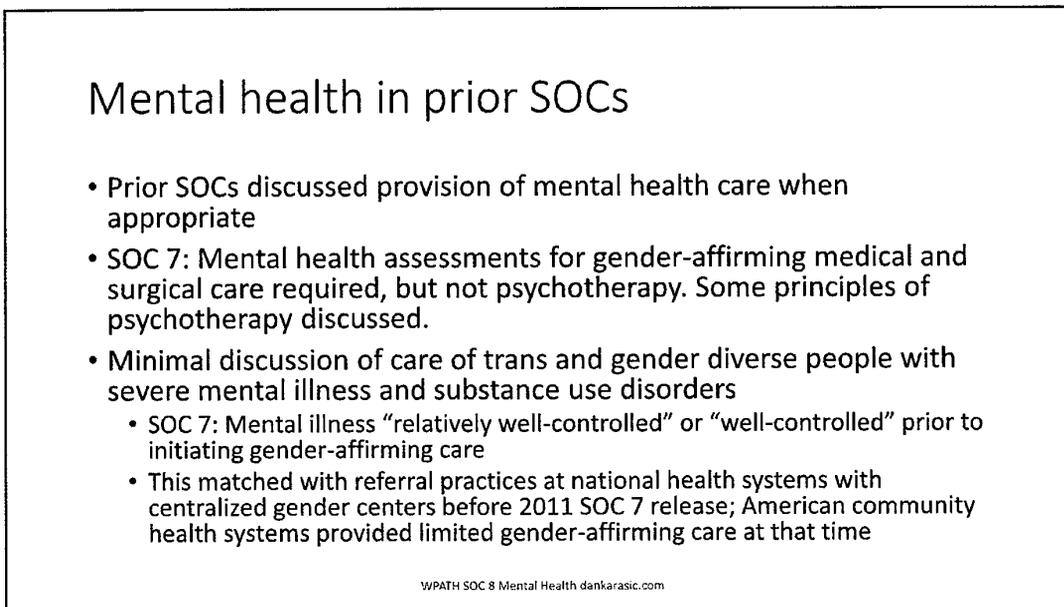








1



2



1

Concerns in advance of SOC 8 Mental Health Chapter

- Recognition among mental health authors in SOC 7 that “well-controlled” and “relatively well-controlled” criteria need to be reassessed for SOC 8.
- Feedback from clinicians of shortcomings of “well-controlled” criteria
- Continued concerns about care of trans people in mental health and substance use disorder facilities
- Presentations and discussions on these issues at WPATH, EPATH, and USPATH conferences in 2014 (Bangkok), 2015 (Ghent), 2016 (Amsterdam), and 2017 (Los Angeles)

WPATH SOC 8 Mental Health dankarasic.com

3

Cases demonstrating need for better guidelines on care of trans people with mental illness

1. “Expert” hired by state correctional agency to conduct evaluations for gender affirming surgery denies surgery due to incarcerated person having a personality disorder that is not “well-controlled.”
2. Young trans man’s psychiatrist and therapist reluctant to provide letter for chest surgery due to history of suicidal thoughts and depression.
3. Insurance denies coverage for surgery because of psychiatric hospitalization in the last 6 months.
4. Ombudsman for a state psychiatric hospital contacts me with complaint by patient after discharge from several month hospitalization, because hormones were discontinued on admission and not restarted through hospitalization. Policy at hospital is to not provide gender affirming hormones due to concerns that mental illness not “well-controlled” and questions of capacity to consent.

WPATH SOC 8 Mental Health dankarasic.com

4

2

More cases demonstrating need for better guidelines on care of trans people with mental illness

- 5. Patient in state forensic hospital with DID permitted to transition after integration of alters to being present in co-consciousness. Pt lives as trans man, on testosterone for extended period until a new psychiatrist takes over case. She decides that the patient's male identity is due to an alter, and forces the patient to detransition to try to bring back a female alter.
- 6. A fifteen year old trans girl who had been an early transitioner is treated with an SSRI for depression and develops new onset SI as a side effect of the SSRI. Parents take their daughter to an ER; only bed is in outlying hospital. Weekday staff are respectful of the girl's gender identity, but weekend staff misgender her and move her out from sharing a room with another girl.

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More cases demonstrating need for better guidelines on care of trans people with mental illness

- 7. Trans patient with severe mental illness has pre-operative urine test positive for nicotine metabolites, and surgery is postponed.
- 8. "Expert" in case over whether gender affirming care for youth should be banned recommends psychotherapy to help youth accept their bodies as an alternative to transition.

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3

SOC 8 Process

- SOC 7 Chair Eli Coleman, PhD is [REDACTED] of SOC 8
- [REDACTED] MD and [REDACTED] MD, PhD are [REDACTED]
- Chapter leads were then selected
- Remainder of SOC 8 committee were selected by editors and chapter leads and approved by the WPATH Board
- Johns Hopkins team selected and hired to rate levels of evidence in literature
- Each chapter wrote review and recommendations
- Delphi process for consensus recommendations
- Drafts of SOC 8 chapters written and edited
- Complete and published in 2022!

7

Chapters in SOC 8



8

4

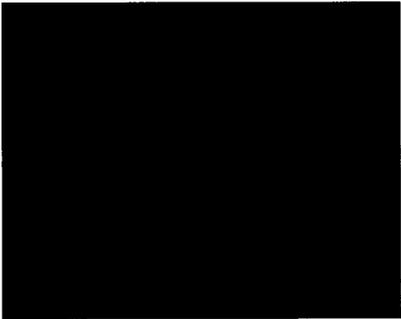
SOC 8 Chapters

- Introduction S5
- Chapter 1. Terminology S11
- Chapter 2. Global Applicability S15
- Chapter 3. Population Estimates S23
- Chapter 4. Education S27 Chapter
- Chapter 5. Assessment of Adults S31 Chapter
- Chapter 6. Adolescents S43 Chapter
- Chapter 7. Children S67 Chapter
- Chapter 8. Nonbinary S80
- Chapter 9. Eunuchs S88
- Chapter 10. Intersex S93
- Chapter 11. Institutional Environments S104
- Chapter 12. Hormone Therapy S110
- Chapter 13. Surgery and Postoperative Care S128
- Chapter 14. Voice and Communication S137
- Chapter 15. Primary Care S143
- Chapter 16. Reproductive Health S156
- Chapter 17. Sexual Health S163
- Chapter 18. Mental Health

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Mental Health Chapter

Dan Karasic (lead), USA



SOC 8.

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Mental Health chapter process

- Through phone, Zoom and email, our group came to consensus on 20 statements for the mental health chapter.
- SOC 8 editors, led by [REDACTED], provided feedback. Half of the statements were considered “good practice” statements, rather than directives reflecting actions our group recommended for health practitioners, and therefore did not go to Delphi process.
- Ten statements went to Delphi process, the first chapter to do so.
- All ten statements were approved on first pass by Delphi.
- With public comment release of the SOC 8 draft, there was opportunity to communicate with other chapter leads and editors re consistency of recommendations.
- Response to public comments.
- Final editing.

11

SOC 8 Mental Health: Informed Consent

- **We recommend mental health professionals address mental health symptoms that interfere with a person’s capacity to consent to gender affirming treatment before gender affirming treatment is initiated.**
 - The healthcare provider proposing to provide care must educate the patient on the risks, benefits, and alternatives to any care that is offered, so that the patient can make an informed, voluntary choice.
 - Psychiatric illness and substance use disorders, and in particular cognitive impairment and psychosis, may impair an individual’s ability to understand the risks and benefits of the treatment
 - A patient may have significant mental illness, yet be able to understand the risks and benefits of a particular treatment.
 - Multidisciplinary communication is important in challenging cases, and expert consultation should be utilized as needed.
 - For some, careful explanation may overcome limitations on capacity for consent
 - For some, treatment of mental illness may be necessary for capacity to consent

12

6

SOC 8 Mental Health: Perioperative care

- **We recommend that mental health professionals offer care and support to transgender and gender diverse people to address mental health symptoms that interfere with a person's capacity to participate in essential perioperative care before gender-affirmation surgery**
 - The inability to adequately participate in perioperative care should not be a block to needed transition care, but rather an indication that mental health care and social support should be provided.
 - Mental illness and substance use disorders may impair the ability of the patient to participate in perioperative care
 - Treatment of the mental illness or substance use disorder may assist in successful outcomes in these cases
 - Arranging more support for the patient, from family and friends or a home healthcare worker, may assist the patient in participating in perioperative care sufficiently for surgery to proceed
 - The benefits of mental health treatments that might delay surgery should be weighed against the risks of delaying surgery, including the impact on mental health of delays in addressing gender dysphoria

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SOC 8 Mental Health: Impacts differ with demands of procedure

- **We recommend that when significant mental health symptoms or substance use exists, mental health professionals assess the impact that the mental health symptoms may have on outcomes based on the nature of the specific gender-affirming surgical procedure**
 - Some procedures require a greater ability to follow pre-operative planning as well as peri and post-operative care in order to achieve best outcomes
 - Mental health providers can assist patients/clients in reviewing pre-planning and perioperative care instructions for each surgical procedure
 - Provider and patient can collaboratively determine the necessary support or resources to assist with keeping appointments for perioperative care, necessary supplies, financial issues, and other pre-operative coordination and planning

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7

SOC 8 Mental Health: Psychosocial support for surgery

- **We suggest health care professionals assess the patient's need for psychosocial and practical support in the perioperative period surrounding gender affirming surgery.**
 - This assessment is the first step in identifying where additional supports may be needed and to work collaboratively with the patient to successfully navigate the pre-surgical, peri-surgical and post-surgical periods.
 - Health providers can help patients to secure stable housing, build social and family supports, plan ways to respond to medical complications, and help patients to navigate the potential impact on work/income
 - In the post-surgical period, patients benefit from e.g. a safe, private space to dilate, friends or family that can help support their activities of daily living, and support coping through the emotional challenges of recovery.

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SOC Mental Health: Tobacco/nicotine

- **We recommend that health care professionals counsel and assist transgender and gender diverse patients in becoming abstinent from tobacco/nicotine prior to gender-affirming surgery.**
 - Trans people smoke tobacco at higher rates than general population
 - People with mental illness smoke tobacco at higher rates
 - Smoking impairs healing from plastic surgery
 - Smoking increases complications from surgery (thrombosis, respiratory complications with anesthesia)
 - Many surgeons require smoking cessation prior to surgery
 - Mental health and medical providers should address tobacco/nicotine use well ahead of surgery— e.g. with smoking cessation programs, medication (varenicline)

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8

SOC 8 Mental Health: Maintaining hormones for inpatients

- **We recommend that health care professionals maintain existing hormone treatment if a transgender/ gender diverse individual requires admission to a psychiatric or medical inpatient unit, unless contraindicated.**

- Providers may see hormones as secondary in the setting of an emergency or as potentially contributing to the presenting medical or psychiatric issue.
- Excepting uncommon circumstances, e.g. acute thrombosis, it's best to view maintaining hormone regimens as the default and discontinuing them as an active intervention, rather than vice versa
- While, for example, a testosterone injection might be delayed a few days in the patient presenting with an acute manic episode, in most cases discontinuing hormones disrupts provider-patient relationship and increases patient distress.

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SOC 8 Mental Health: Respecting gender in inpatient and residential settings

- **We recommend that health care professionals ensure that if transgender and gender diverse people need inpatient or residential mental health, substance abuse, or medical care, all staff use the correct name and pronouns (as provided by the patient), as well as provide access to bathroom and sleeping arrangements that are aligned with the person's gender identity.**

- Transgender and gender diverse patients encounter discrimination in a range of health settings, including in hospitals, mental health treatment settings, and drug treatment programs.
- Not respecting gender identity or otherwise discriminating against trans/gender diverse patients in medical or mental health inpatient settings, and residential treatment settings, harms patients and dissuades them from receiving care in the future
- Illustration: recent experience of a patient

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9

Dangers of not recognizing patient's gender

- Denial of access to gender appropriate bathrooms has been associated with increased suicidality. (Seelman 2016).
- Use of chosen names for trans and gender diverse people has been associated with lower depression and suicidality. (Russell et al 2018).

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SOC 8 Mental Health: Social support

- **We recommend that mental health professionals encourage, support, and empower transgender and gender diverse people to develop and maintain social support systems, including peers, friends and families.**
 - Trans and gender diverse people may become isolated from family, community and other sources of psychosocial support
 - Development of supportive network important for mental health

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SOC 8 Mental Health: Psychotherapy

- **We suggest that health care professionals should not make it mandatory for transgender and gender diverse people to undergo psychotherapy prior to the initiation of gender-affirming medical treatment, while acknowledging that psychotherapy may be helpful for some transgender and gender diverse people.**
 - Psychotherapy is helpful for many
 - A psychotherapy requirement to obtain hormones or surgery is an unnecessary barrier to care
-

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SOC 8: Mental Health: Conversion therapy

- **We recommend that “reparative” and “conversion” therapy aimed at trying to change a person’s gender identity and lived gender expression to become more congruent with sex assigned at birth should not be offered.**
 - See American Psychological Association 2021 statement opposing gender identity change efforts.

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Gender Identity Change Efforts

- American Psychological Association on Gender Identity Change Efforts, Feb. 2021



APA RESOLUTION on Gender Identity Change Efforts
FEBRUARY 2021

The foundational professional guideline for working with gender-diverse persons acknowledges that "Psychologists understand that gender is a nonbinary construct that allows for a range of gender identities and that a person's gender identity may not align with sex assigned at birth" (APA, 2015, p. 834). Gender identity refers to "a person's deep felt, internal sense of being a girl, woman, or female; a boy, a man, or male; a blend of male or female; (or another) gender" (APA, 2015, p. 862). While gender refers to the traits, characteristics and behaviors culturally associated with one's sex assigned at birth, in some cases, gender may be distinct from the physical markers of biological sex (e.g., genital chromosomal). Gender identity is also distinct from gender expression, which refers to "the presentation of an individual including physical appearance, clothing choice and accessories, and behaviors that express aspects of gender identity" (APA, 2015, p. 863). Cisgender refers to "a person whose gender identity aligns with sex assigned at birth" (e.g., an individual assigned female at birth who identifies as a woman) (APA, 2015, p. 863). Transgender is "an umbrella term used to describe the full range of people whose gender identity and/or gender role do not conform to what is typically associated with their sex assigned at birth" (APA, 2015, p. 863). For the purpose of this resolution, we are using a broad definition of transgender to include transgender women/girls, transgender men/boys, nonbinary individuals (i.e., people who may identify as a gender other than a woman/girl or a man/boy), and any individual who articulates a gender identity different from societal expectations based on their sex assigned at birth.

Some transgender and gender nonbinary individuals seek gender-affirming medical care (e.g., hormone therapy, surgery) while others do not. Similarly, some transgender and gender nonbinary individuals seek to change their gender marker and/or their name on legal documents, while others do not. In this resolution, we strive to be inclusive of all gender diversity regardless of a person's pursuit of social, medical, or legal transition.

attributed to women/girls, 3) create systems that confer privilege to cisgender people and label transgender identities and expressions as normative, 4) discriminate against transgender and gender nonbinary individuals (Owen, 2017).

Gender identity change efforts (GICE) refer to a range of techniques used by mental health professionals and non-professionals with the goal of changing gender identity, gender expression, or associated components of these to be in alignment with gender role behaviors that are stereotypically associated with sex assigned at birth (Hill et al., 2010; SAMHSA, 2015). In addition to explicit attempts to change individuals' gender according to normative pressures, GICE has also been a component of sexual orientation change efforts (SOCE). As intense focus on normative conformity is a frequent characteristic of SOCE (as possible that authors in the literature describing sexual orientation change efforts engendered their participants (Hill et al., 2010). However, "surge" literature and discourse conceptualize gender diversity as a sickness, a mental illness, and harmful, perpetuating cisgenderism and transphobia (Edgerton & Spray, 2019). Frantz, Hays et al. (2019) identified forms of GICE that are often not discussed in the psychological literature but that appear to disproportionately affect Black transgender and gender nonbinary individuals including violence, "church hurt" (i.e., religious faith-based trauma), and gatekeeping from gender-affirming care. These efforts may be referred to as "conversion therapy," "corrective" treatments, or "normalizing" therapies (Hill et al., 2010). However, to consider these techniques as therapies or treatments is inaccurate and inappropriate because the incongruence between sex and gender in and of itself is not a mental disorder (World Health Organization, n.d.) so any behavioral health or GICE technique or treatment that seeks to change an individual's gender identity or expression is not indicated; that any behavioral health or GICE effort that attempt to change an individual's gender identity or expression is inappropriate (Hill et al., 2010; SAMHSA, 2015).

With roots in this history, GICE are founded on the notion that

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Cases demonstrating need for better guidelines on care of trans people with mental illness

1. "Expert" hired by state correctional agency to conduct evaluations for gender affirming surgery denies surgery due to incarcerated person having a personality disorder that is not "well-controlled."
2. Young trans man's psychiatrist and therapist reluctant to provide letter for chest surgery due to history of suicidal thoughts and depression.
3. Insurance denies coverage for surgery because of psychiatric hospitalization in the last 6 months.
4. Ombudsman for a state psychiatric hospital contacts me with complaint by patient after discharge from several month hospitalization, because hormones were discontinued on admission and not restarted through hospitalization. Policy at hospital is to not provide gender affirming hormones due to concerns that mental illness not "well-controlled" and questions of capacity to consent.

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More cases demonstrating need for better guidelines on care of trans people with mental illness

- 5. Patient in state forensic hospital with DID permitted to transition after integration of alters to being present in co-consciousness. Pt lives as trans man, on testosterone for extended period until a new psychiatrist takes over case. She decides that the patient's male identity is due to an alter, and forces the patient to detransition to try to bring back a female alter.
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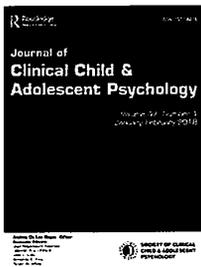
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Initial Clinical Guidelines for Co-Occurring Autism Spectrum Disorder and Gender Dysphoria or Incongruence in Adolescents

John F. Strang, Haley Meagher, Lauren Kenworthy, Annelou L. C. de Vries, Edgardo Menvielle, Scott Leibowitz, Aron Janssen, Peggy Cohen-Kettenis, Daniel E. Shumer, Laura Edwards-Leeper, Richard R. Pleak, Norman Spack, Dan H. Karasic, Herbert Schreier, Anouk Balleur, Amy Tishelman, Diane Ehrensaft, Leslie Rodnan, Emily S. Kushner, Francie Mandel, Antonia Caretto, Hal C. Lewis & Laura G. Anthony

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Initial Clinical Guidelines for Co-Occurring Autism Spectrum Disorder and Gender Dysphoria or Incongruence in Adolescents

John F. Strang¹, Haley Meagher¹, Lauren Kenworthy¹, Annelou L. C. de Vries², Edgardo Menvielle³, Scott Leibowitz⁴, Aron Janssen⁵, Peggy Cohen-Kettenis⁶, Daniel E. Shumer⁷, Laura Edwards-Leeper⁸, Richard R. Pleak⁹, Norman Spack¹⁰, Dan H. Karasic¹¹, Herbert Schreier¹², Anouk Balleur⁶, Amy Tishelman¹³, Diane Ehrensaft¹⁴, Leslie Rodnan¹⁵, Emily S. Kushner¹⁶, Francie Mandel¹⁷, Antonia Caretto¹⁸, Hal C. Lewis¹⁹, and Laura G. Anthony²⁰

¹*Division of Pediatric Neuropsychology, Children's National Health System*

²*Department of Child and Adolescent Psychiatry, VU University Medical Center*

³*Division of Psychiatry and Behavioral Sciences, Children's National Health System*

⁴*Department of Psychiatry and Behavioral Sciences, Northwestern University, Feinberg School of Medicine*

⁵*Department of Child and Adolescent Psychiatry, New York University School of Medicine*

⁶*Department of Medical Psychology, VU University Medical Center*

⁷*Division of Pediatric Endocrinology, University of Michigan Health System*

⁸*School of Professional Psychology, Pacific University*

⁹*Division of Child & Adolescent Psychiatry, Hofstra Northwell School of Medicine*

¹⁰*Division of Endocrinology, Boston Children's Hospital*

¹¹*Department of Psychiatry, University of California San Francisco School of Medicine*

¹²*Department of Psychiatry, University of California San Francisco-Benioff-Children's Hospital Oakland*

¹³*Departments of Psychiatry, Endocrinology and Urology, Boston Children's Hospital and Harvard Medical School*

¹⁴*Child and Adolescent Gender Center, Department of Pediatrics, University of California San Francisco Benioff Children's Hospital*

¹⁵*Division of Psychiatry and Behavioral Sciences, Children's National Health System*

¹⁶*Department of Radiology and Center for Autism Research, The Children's Hospital of Philadelphia*

¹⁷*Divisions of Endocrinology and Social Work, Boston Children's Hospital*

¹⁸*Private Practice, Farmington Hills, MI*

¹⁹*Division of Psychiatry and Pediatrics, University of Colorado*

²⁰*Division of Pediatric Neuropsychology, Children's National Health System*

Evidence indicates an overrepresentation of youth with co-occurring autism spectrum disorders (ASD) and gender dysphoria (GD). The clinical assessment and treatment of

Correspondence should be addressed to John F. Strang, Division of Pediatric Neuropsychology, Children's National Health System, 15245 Shady Grove Road, Suite 350, Rockville, MD 20850. E-mail: jstrang@childrensnational.org

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adolescents with this co-occurrence is often complex, related to the developmental aspects of ASD. There are no guidelines for clinical care when ASD and GD co-occur; however, there are clinicians and researchers experienced in this co-occurrence. This study develops initial clinical consensus guidelines for the assessment and care of adolescents with co-occurring ASD and GD, from the best clinical practices of current experts in the field. Expert participants were identified through a comprehensive international search process and invited to participate in a two-stage Delphi procedure to form clinical consensus statements. The Delphi Method is a well-studied research methodology for obtaining consensus among experts to define appropriate clinical care. Of 30 potential experts identified, 22 met criteria as expert in co-occurring ASD and GD youth and participated. Textual data divided into the following data nodes: guidelines for assessment; guidelines for treatment; six primary clinical/psychosocial challenges: social functioning, medical treatments and medical safety, risk of victimization/safety, school, and transition to adulthood issues (i.e., employment and romantic relationships). With a cutoff of 75% consensus for inclusion, identified experts produced a set of initial guidelines for clinical care. Primary themes include the importance of assessment for GD in ASD, and vice versa, as well as an extended diagnostic period, often with overlap/ blurring of treatment and assessment.

Gender dysphoria (GD; formerly described as gender identity disorder; American Psychiatric Association, 2000), currently referred to as transsexualism in the International Statistical Classification of Disease and Related Health Problems, 10th Revision (ICD-10; World Health Organization, 2010) and likely to be referred to as gender incongruence in ICD-11 (ICD-11 Beta Draft; World Health Organization, 2014), is the condition of incongruence, with or without distress, related to a discrepancy between an individual's assigned gender at birth and their experienced gender (American Psychiatric Association, 2013). Gender nonconformity (GNC; also known as "gender variance") is a broader term that encompasses GD and describes the situation in which an individual's gender identity or expression shows variation from the cultural norms prescribed for a particular sex. Standards of clinical care for GNC and GD youth include those outlined in the World Professional Association for Transgender Health "Standards of Care for the Health of Transsexual, Transgender, and Gender-Nonconforming People" document (Coleman et al., 2012) and the practice parameter on gay, lesbian, or bisexual sexual orientation, gender nonconformity, and gender discordance in children and adolescents (Adelson & American Academy of Child and Adolescent Psychiatry Committee on Quality Issues, 2012). These guidelines include providing psychoeducational and social support for GNC young people and their parents and careful psychological evaluation for GD. For those youth (as young as early puberty) who meet criteria for GD, who are determined to be appropriate for physical interventions to promote healthy psychological adjustment, the following treatments are available: puberty suppression beginning in early puberty, cross-sex hormones in later adolescence, and gender-affirming surgical procedures (many different types of procedures, some of which are also referred to as sex reassignment surgery; generally available when a young person reaches the legal age of majority to give consent).

Several studies have suggested that autism spectrum disorder (ASD) and GNC/GD co-occur more often than by chance in adolescents (de Vries, Noens, Cohen-Kettenis, van Berckelaer-Onnes, & Doreleijers, 2010), and this co-occurrence presents significant clinical challenges (Menvielle, 2012). Ten independent case studies of co-occurring ASD and GNC/GD appear in the research literature, representing a range of nationalities and ages (four prepubescent children, three adolescents, six adults, and a 10-year-old whose pubertal status was not reported; Gallucci, Hackerman, & Schmidt, 2005; Jacobs, Rachlin, Erickson-Schroth, & Janssen, 2014; Kraemer, Delsignore, Gundelfinger, Schnyder, & Hepp, 2005; Landén & Rasmussen, 1997; Lemaire, Thomazeau, & Bonnet-Brihault, 2014; Mukaddes, 2002; Parkinson, 2014; Perera, Gadambanathan, & Weerasiri, 2003; Tateno, Tateno, & Saito, 2008; Williams, Allard, & Sears, 1996). Several studies have found an overrepresentation of ASD or ASD symptoms among child/adolescent referrals for GD (de Vries et al., 2010; Shumer, Tishelman, Reisner, & Edwards-Leeper, 2015; Skagerberg, Di Ceglie, & Carmichael, 2015; VanderLaan, Leef, Wood, Hughes, & Zucker, 2015). Three studies have found an overrepresentation of the "wish to be the other gender" among children and adolescents with ASD (Janssen, Huang, & Duncan, 2016; Miesen, Hurley, Bal, & de Vries, 2015; Strang et al., 2014). Shumer and colleagues examined relationships between Social Responsiveness Scale (SRS) scores (used as a proxy for ASD symptoms) and GNC, finding that elevations on child SRS scores (as rated by the parent) and maternal SRS scores (as rated by the other parent or a close relative) independently predicted greater GNC in the child (Shumer, Roberts, Reisner, Lyall, & Austin, 2015).

ASD is often a debilitating disorder, with studies reporting generally poor long-term (adult) outcomes in terms of independence and meaningful employment (Howlin, Goode, Hutton, & Rutter, 2004). Even for individuals with

average or above intelligence, estimates indicate that only 9% reach full adult functional independence (Farley et al., 2009). Deficits in social skills and communication, and the presence of repetitive behaviors/overfocused interests characterize the diagnosis. Children and adolescents with ASD often show profoundly underdeveloped adaptive/independence skills, which are related to problems with executive function skills (Gilotty, Kenworthy, Sirian, Black, & Wagner, 2002; Pugliese et al., 2015). Typical ASD executive function profiles include problems with cognitive and behavioral flexibility, as well as with organization and planning (e.g., setting and completing goals; Kenworthy, Yerys, Anthony, & Wallace, 2008).

The co-occurrence of ASD and GNC/GD in adolescents presents significant diagnostic and treatment challenges given the social, adaptive, self-awareness, communication, and executive function complexities of youth with ASD. However, many adolescents with this co-occurrence are found clinically appropriate for GD-related treatment (de Vries et al., 2010). A primary challenge is how to clinically assess and support them (Kraemer et al., 2005). Individual clinics have through experience developed rich clinical knowledge for supporting adolescents with the co-occurrence; however, there are currently no guidelines published. In response to this need, this current study aimed to develop initial clinical guidelines for the care of adolescents with co-occurring ASD and GNC/GD through use of the Delphi procedure, which allows collaborative participation of experts in the field. These guidelines address the clinical care of adolescents (defined as the time of onset of puberty through age 19) but do not address the clinical care of prepubertal children, as prepubertal children do not receive gender-related medical interventions and therefore their care needs are somewhat different. Further, many youth with ASD first present with gender issues in adolescence, with no significant signs of either gender exploration or gender dysphoria in young childhood. We strongly endorse future workgroups developing specific clinical recommendations addressing the needs of prepubertal children with co-occurring ASD and GNC/GD.

METHODS

To obtain clinical consensus statements, as well as to identify areas in which current experts differ, this study employed a two-stage Delphi procedure. The Delphi procedure is a well-studied multistep survey method for obtaining consensus among experts to define appropriate clinical care (Keeney, McKenna, & Hasson, 2011; Linstone & Turoff, 1975), such as with self-injury (Kelly, Jorm, Kitchener, & Langlands, 2008), postdisaster care (Bisson et al., 2010), palliative care (Morita, Bito, Kurihara, & Uchitomi, 2005), stroke care (Philp et al., 2013), and so forth. The method presents structured pertinent questions in a field to experts,

who then anonymously offer responses. The data are combined and returned to the expert participants, with no names tied to statements, and each expert indicates his or her level of agreement with each item. The method helps circumvent the problems of a group process including rigidity in defending proposed ideas, conforming to more senior members, and rejection of novel ideas. Various formats have been used for the Delphi method, including in-person work sessions and online survey formats (Hsu & Sandford, 2007). For this study, we employed an online survey method, which allowed for experts to participate from geographically distant regions (Keeney et al., 2011; Linstone & Turoff, 1975). The Delphi procedure is a robust method for fields in which there are a small number of experts (Akins, Tolson, & Cole, 2005), such as with adolescents with co-occurring ASD and GNC/GD.

Participant recruitment followed Delphi method standards for recruiting experts in a field (Keeney et al., 2011; Linstone & Turoff, 1975). Potential participants were identified first through a comprehensive search of the research literature using the terms “autism spectrum disorder,” “autism,” or “Asperger’s” combined with the following: “gender identity,” “gender variance,” “gender nonconformity,” “transgender,” or “gender dysphoria.” Authors were identified from the resulting research literature. In addition, a comprehensive search of pediatric outpatient gender clinics was conducted, including the names of the directors and clinical staff experienced in co-occurring GNC/GD and ASD in adolescents. We then used a snowball sampling technique to allow this group of experts to identify other potential experts who were missed in our initial search (Biernacki & Waldorf, 1981). This was accomplished by asking the participants to forward the invitation e-mail themselves to other researcher or clinician experts in the field of co-occurring ASD and GNC/GD youth. In total, 30 potential participants were invited, and 27 expressed interest in participating.

The 27 potential participants were then screened both for level of training/experience in the fields of ASD and GNC/GD independently and for their experience with adolescents with the co-occurrence. In total, 22 individuals met criteria for the study in terms of expertise and then participated. Expertise, and resulting invitation to complete the Delphi surveys, was defined as at least 2 years of experience working with adolescents with the ASD and GNC/GD co-occurrence clinically and/or in research settings, as well as a clinical and/or research specialization in GNC/GD, ASD, or GNC/GD and ASD. As was expected, a majority of participants were experts in GNC/GD (91%), as the co-occurrence with ASD has been primarily reported on from gender clinics/specialists in past reports. Forty-one percent reported being experts in ASD, and 36% reported being experts in both GNC/GD and ASD independently. Although not all were experts in ASD, 68% reported specialization in the co-occurrence of GNC/GD and ASD. The participants represented a broad range of specialties: clinical

TABLE 1
Participant Experience With GD and ASD

Diagnosis	Years Experience <i>M (SD)</i>	Expert With Population Total (%)	Published in Population Total (%)	No. of Individuals Participant Has Seen Clinically Total (%)		
				1-10	11-20	21+
GD	17.2 (10.7)	21 (95%)	18 (82%)	1 (4.5%)	1 (4.5%)	20 (91%)
ASD	14.2 (10.2)	9 (43%)	7 (32%)	—	6 (27%)	16 (73%)
GD + ASD	11.9 (10.0)	16 (73%)	7 (32%)	9 (43%)	5 (24%)	7 (33%)

Note: Data were missing for one participant's self-assessment of expertise with ASD and in the reported number of individuals one participant had seen clinically. GD = gender dysphoria; ASD = autism spectrum disorders; Years Experience = years experience working with this population; Expert with Population = participant has a primary clinical specialty and advanced training with this population; Published in Population = participant has published at least one peer-reviewed article in an area related to this population.

psychology (45.5%), psychiatry (31.8%), endocrinology (9.1%), pediatrics (4.5%), social work (4.5%), and counseling (4.5%). A majority of participants reported participation in peer-reviewed academic research, with 32% published in the field of ASD, 77% in GNC/GD, and 32% in co-occurring GNC/GD and ASD. Twenty-one of the 22 participants were child/adolescent specialists, and one participant was an adult specialist with significant experience working with children/adolescents. Three of the participants reside and work in Europe (the Netherlands), and the others work in the United States. A majority of participants were affiliated with academic medical center clinical and/or research programs at the time of this study (20 of the 22 participants). See Table 1 for a summary of participant training, specialization, and experience.

Informed consent was obtained from all individual participants included in the study. For the first round of the Delphi interviews, participants were asked to complete online surveys, responding to 12 areas of clinical care. Questions focused on diagnosis/evaluation, treatment, and significant issues that affect people with the co-occurrence. Nineteen participants completed this first round. The data were compiled and coded using NVivo qualitative data analysis computer software (NVivo 10, 2012). The data were first divided between the main categories of diagnostics and intervention, with considerable overlap between the two. Because terminology in the data was extremely diverse for clinical and gender issues, the NVivo search mechanism would have resulted in a significant loss of data. Therefore we used the manual coding functions of NVivo, which resulted in the following principle thematic areas: approach to assessment, differential diagnosis, and treatment. Subcategories within these thematic areas included diagnosing GD in youth diagnosed with ASD, diagnosing ASD in youth with GD, assessment protocols, appropriate clinical specialists/team, challenges working with other providers, parent/family involvement, protocols for treatment, treatment targets, treatment approaches, issues of safety, and coping/socialization.

Next, two readers worked to synthesize the data into summary statements, working independently and then together to achieve consensus for how best to express the ideas clearly and concisely while maintaining the integrity of the participants' intents. This process included removing repetitious data, as well as generating a structure for organizing the statements. The resulting statements were presented to the participants for their review (Round 2 of the Delphi procedure), without any indication linking authors/names to statements. Participants were asked whether they agreed or disagreed with each statement, and if they disagreed, what changes would need to be effected in the statement for them to agree. Twenty people participated in the second round: 17 of the original 19 participants and three participants who chose not to participate in the first round of the Delphi procedure. The "new" participants were allowed to respond to the second questionnaire even though they did not give any input into the original questionnaire, because their input provided more perspectives, which is critical in a field in which there are few experts. This inclusive method has been used in previous studies using the Delphi procedure (Keeney et al., 2011).

Statements were evaluated for consensus, with 75% consensus required for a statement to be included in the expert guidelines (see Results section). If participant recommendations for editing a statement could be made without changing the essence of the statement, these slight edits were made. These edits were often clarifications, or more inclusive language to describe variations in gender. Finally, all expert participants were invited to identify themselves and serve as coauthors of this resulting article. A majority of the participants (> 90%) consented to identify themselves as coauthors. Additional informed consent was obtained from all identified participants. This group then participated in the editing of the resulting article, with the exception of the Results section, which was produced through the Delphi procedure and is presented in its original form based on that process. The first three authors were primary architects of the study, and the final author made significant

contributions to the statistical methods. All of the other authors were from the expert participant panel, listed as Authors 4–22. The author order, excluding the first three authors and the last author, was determined by a random procedure.

RESULTS

The following is the document that was developed through the Delphi procedure, with an average of 89.6% agreement for all items. These guidelines were created to accompany and support existing best practice GD/GNC treatment guidelines for adolescents (e.g., Adelson & American Academy of Child and Adolescent Psychiatry Committee on Quality Issues, 2012; Coleman et al., 2012). Minor clarifications to the guidelines were made following masked review, all of which were considered and approved by the author team. Contentious items that need further consideration and research are reviewed in the discussion.

Assessment

When assessing for co-occurring ASD and GD, gender specialists and autism specialists should collaborate to be part of the assessment when there is no available clinician skilled in both specialties. Due to the complexity of diagnosis in many of these cases, there may be a more extended diagnostic period and clinical decisions may proceed more slowly. Given the high incidence of ASD among adolescents with GNC/GD, gender referrals should be screened for ASD. If ASD is suspected and the screening clinician is not an ASD specialist, the patient should be referred to an ASD specialist for ASD diagnostics. ASD-related evaluation can provide important information about the capacities of the

adolescent, including cognitive level, executive function/future thinking-skills, communication abilities, social awareness, and self-awareness. Understanding this profile of skills will help inform the clinical approaches to best match the patient's profile/strengths. Given the increased incidence of gender issues among people diagnosed with ASD, youth with ASD should also be screened for gender issues. Screening may be accomplished by including a few questions about gender identity on an intake form and/or by including some content about gender issues in the clinical interview. If gender concerns are noted, a referral should be made to an appropriate gender specialist for assessment and supports. See Figure 1 for a clinical assessment protocol.

The diagnosis of ASD should not exclude an adolescent from also receiving a GD diagnosis and, when indicated, appropriate GD-related treatment. However, clinicians and parents sometimes dismiss GD as a trait of ASD (e.g., as an overfocused or unusual interest). Although in some cases GD symptoms appear to stem from ASD symptoms, many adolescents have persistent GD independent of their ASD. Similarly, an undiagnosed ASD can be missed if a clinician and/or parents view an adolescent's social difficulties as stemming from GD-related challenges alone. Parents and/or clinicians may resist further assessments after receiving one diagnosis, whether it be ASD or GD, if they view all symptoms through the lens of the initial diagnosis.

Diagnosing ASD can be complex in gender nonconforming youth. A young person might appear socially awkward or withdrawn related to their history of GNC, such as when there has been insufficient opportunity to develop a sense of social belonging and acceptance. Diagnosing GD can be complex in adolescents with ASD due to ASD-related weaknesses in communication, self-awareness, and executive function. For example, ASD communication deficits can result in unclear, tangential communication, which can

- Emergency intakes: If the adolescent presents in a state of emergency, as some gender dysphoria (GD) referrals do, then as in any assessment, the first priority is risk reduction/safety. Hospitalization may be necessary in extreme cases to prevent self-harm/mutilation, though psychiatric hospital units are often not equipped to work with gender dysphoric adolescents with autism spectrum disorders (ASD), and so outside consultation to the unit may be necessary. Ultimately, engaging a therapist with training (or consultation support) in both ASD and gender nonconformity/GD may be a critical step; helping a patient understand that relief is coming and that their gender-needs will be addressed may reduce safety risks, and support further assessment.
- ASD assessment: When an ASD diagnosis is suspected, it is important for an autism specialist to confirm the diagnosis, if a diagnosis has not been established. Whenever possible, a neuropsychological/autism evaluation should be conducted to evaluate the impact of ASD on an adolescent's ability to understand and report GD symptoms as well as engage in therapy/treatments. Evaluations should include assessment of general cognitive skills, executive function skills (impulse control, flexibility, planning, future thinking), communication skills, emotional functioning, self-awareness/social cognition, and capacity for self-advocacy. Knowledge of the young person's capacities will inform the GD diagnosis process (i.e., how to best obtain clinical/diagnostic information and understand that information), as well as deciding on clinical treatment options (i.e., the ability to understand treatments, comply with treatments, consider a range of gender possibilities vs. concrete/black-and-white thinking).
- Gender-related assessment: When gender issues are reported/suspected in an adolescent with ASD, a structured interview should be used to assess for gender dysphoria, including dysphoria over time, intensity of dysphoria, and its pervasiveness. Whenever possible, it is important to obtain additional report from other sources (e.g., parents), as communication, self-awareness, and self-advocacy skills may be vulnerable in adolescents with ASD. It is difficult to separate the assessment and treatment of many of these individuals, because assessment continues throughout the treatment process as the person may develop increased understanding of themselves and increased ability to express their wants and needs. Therefore, gender-related diagnostics may take more time. For some individuals, however, GD diagnosis is immediately clear, such as when the dysphoria has been present for an extended period, the young person is already presenting as a different gender, or when the level of urgency about gender transition is extreme.

FIGURE 1 Assessment protocol.

make it difficult to know how an adolescent truly feels about their gender. ASD-related executive function deficits may result in concrete thinking and struggle with ambiguity and future thinking, which can make assessing an adolescent's understanding of the long-term implications of gender transition/treatment challenging. In addition, ASD-related flexibility difficulties can limit a young person's ability to embrace the concept of a gender spectrum or that gender can be fluid; adolescents with ASD may present with more "black-and-white" thinking about gender.

Adolescents with ASD may have limited self-awareness and may struggle to recognize or understand their gender concerns until later in development. There are some young people with ASD who do not embody a binary transgender presentation (e.g., they may not work to present as a different gender, they may not dress as a different gender, they may not be concerned with their name, etc.) These variations from more common GD presentations may raise issues of credibility for parents, medical/psychological professionals, and so on. However, many such youth appear to have persistent gender signs, feelings, or experiences of another gender and should not be excluded from consideration of GD diagnosis and appropriate related treatments, tailored to their individual needs.

ASD-related symptoms can sometimes create or intensify an identification with GD. Rigid, overly concrete thinking (i.e., black-and-white thinking) in adolescents with ASD and milder gender concerns may lead some children/adolescents to assume that their gender nonconforming interests/traits imply full GD and a need for transition. These young

people may struggle to see or consider an "in-between" solution, such as being a feminine male or "gender queer." Gay or bisexual adolescents with ASD may concretely assume that their sexual attraction to the same gender means that they must be a different gender. Important to note, although some adolescents express gender concerns clearly related to (or due to) their ASD symptoms as just described, based on our long-term clinical experience with this population, we have observed that many have enduring GD and are over time found appropriate for GD supports/treatment (see also de Vries et al., 2010).

Treatment

Assessment and treatment of gender-related issues in adolescents with the co-occurrence often overlap and blur because insight, flexible thinking, communication, and other skills develop over time in ASD treatment. Assessment may continue over time as the young person, through treatment, develops increased capacity for thinking and communicating about their gender. Treatments often must address both diagnoses (GD and ASD) concurrently and evaluate the gender-related needs as therapy progresses and patients have a better understanding of their needs and challenges, the possible solutions that might meet their needs, and their consequences. See Figure 2 for a treatment checklist. Adolescents and their parents often require psychoeducation about the nature of the co-occurrence of ASD and GNC/GD (e.g., that this is a common co-occurrence, that there are a range of options/outcomes), with a focus on

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| <ul style="list-style-type: none"> <input type="checkbox"/> Establish appropriate clinical team, ideally a clinician trained in both autism spectrum disorders (ASD) and gender nonconformity/gender dysphoria (GNC/GD), or clinicians collaborating from each specialty. <input type="checkbox"/> Address and assess intensity of gender feelings/urgency throughout the treatment process, as assessment often continues during treatment, informing and shaping the goals of the treatment. Key clinical questions: <ul style="list-style-type: none"> a. Is the GD clear, urgent, pervasive, and persistent over time (i.e., meeting full diagnostic criteria for GD)? If yes, consultation with medical transition services may be indicated (see "If medical transition is indicated" below). b. Does the GD increase or decrease with intervention (e.g., as adolescent develops increased social/self-awareness, executive function flexibility and big picture thinking skills, communication/self-advocacy skills)? <input type="checkbox"/> Provide psycho-education about and explore the possibility of a range of gender outcomes (e.g., gender spectrum, incorporating aspects of a different gender without full gender transition, etc.) This may require specific approaches targeting ASD related deficits in cognitive flexibility (i.e., reducing all or nothing/black and white thinking). <input type="checkbox"/> Provide structure, as necessary, for gender exploration, supporting the adolescent's ability to explore gender transition, including clothing, name, pronouns, etc. Parents may need to assume a central role in helping facilitate an individual's exploration of their gender when ASD-related weaknesses in daily living skills, planning and self-advocacy interfere with that exploration. Such family support may include reminding a young person of their gender exploration therapy goals during the week, helping a young person to obtain appropriate clothing to try on, and so forth. <input type="checkbox"/> Over the course of treatment, assess for signs that the adolescent's experience of GNC/GD is caused by comorbidities or symptoms of ASD (e.g., ASD preoccupations, misinterpreting sexual orientation for gender, etc.) If it becomes clear that a wish to transition is caused by a comorbidity or symptoms of ASD, explore alternative solutions to gender transition. <input type="checkbox"/> If medical transition is indicated during the process, ensure that a pediatric endocrinologist (or similar medical specialist) trained in GD is engaged in the treatment to discuss risks/benefits of pubertal blockade and/or cross sex hormones. The endocrinologist/medical specialist and other treatment providers (e.g., autism specialist) should collaborate around diagnostics and treatments. If medical treatments begin, provide concrete psycho-education about treatment side effects, risks and benefits and ensure that these issues are understood by the adolescent with concurrent GD and ASD. <input type="checkbox"/> Consider the accessibility and appropriateness of adjunct gender and/or ASD-related supports/services. Provide support, coaching, and vetting as needed. For example, an LGBT youth group leader may require some coaching in how to welcome and engage a person with ASD, and an autism skills group provider may require support in how to work with a GD/gender nonconforming adolescent. |
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FIGURE 2 Treatment checklist (psychosocial and medical).

how GD presentation may be different in individuals with ASD than those without ASD (e.g., differences in presentation and age of onset) and how the assessment/treatment process will unfold. To the extent possible, the assessment/intervention sequence should be outlined in a straightforward and visual manner for the adolescent with ASD (e.g., a checklist or flowchart), using clear language to reduce overload and increase participation in treatment. To reduce the conceptual complexity and vagueness of gender-related concepts, the concepts should be presented as simply and concretely as possible.

Some adolescents with the co-occurrence struggle with treatment compliance. They may not see the purpose, or may not have sufficient organizational skills to attend regular appointments (e.g., psychotherapy or medical) without supports. Given the importance of ongoing monitoring and counseling, it is critical to develop a plan to maximize a patient's motivation and ability to participate consistently in the treatment process. Parent/caregiver involvement is often necessary to support treatment compliance, help move the therapy goals along, and help clarify key information such as intensity of symptoms/gender dysphoria, gender expression/behaviors outside of treatment, and so on. An adolescent with ASD may not know how to present as a different gender, such as choosing/obtaining appropriate clothing. Parent/caregiver involvement may be necessary to guide the gender exploration process. Young people with ASD who are transitioning may require family organizational supports for transition to manage hormone treatments, medical appointments, remembering aspects of dress/presentation, and so forth.

Adolescents who are clearly in an exploratory phase of gender (e.g., with unclear or inconsistent signs of GD) should be encouraged to explore their gender identity over time before being considered for any potentially irreversible gender-related medical treatments. Clinical work may help adolescents explore whether they might be more comfortable with their body than they originally assert and/or whether they might feel comfortable identifying somewhere outside of the gender binary (i.e., "gender spectrum"). A focus on comorbid symptoms may be helpful during this phase, such as treatments targeting executive function (e.g., flexibility/big picture thinking), communication, social cognition, and so on. By providing concrete psychoeducation about how gender for some people can be fluid, not just binary and physical, and concurrent intervention targeting flexible thinking and self-awareness, some individuals with less urgent gender presentations may realize that full gender transition does not fit them. These young people may become more comfortable with a less binary solution, such as maintaining a female body while expressing some male-typical interests/behaviors.

For those adolescents who ultimately engage in some level of transition or cross-gender presentation/identification, intervention may be required to help them navigate

the inherent complexities of GNC/GD and transition. Specific challenges often arise in the areas discussed next.

Social

For some young people with this co-occurrence, it may be difficult/anxiety provoking to express their gender publicly, such as at school or at work. Others are surprisingly resilient and unconcerned (or perhaps unaware) with how others experience them, related to their apparent disconnect from social expectations/bias. Our experience is that the co-occurrence can often lead to increased social isolation, as both ASD and GD can in themselves be isolating, and together the impact is exacerbated. These individuals may struggle to fit in with ASD treatment/social groups due to their GD, and teen gender support groups may struggle to welcome them due to their ASD-related social differences, which may be off-putting to non-ASD peers. Sometimes the primary social contact that these adolescents have is through Internet-based transgender-related blogs/groups, and this may be where they are first introduced to the concept of GD/transgenderism.

Medical Treatments

An ASD diagnosis should not exclude the potential for medical GD treatments, including puberty suppression and cross-sex hormone intervention. Of these treatments, puberty suppression is considered to have generally reversible effects if discontinued, though further research is required (Schagen, Cohen-Kettenis, Delemarre-van de Waal, & Hannema, 2016). Cross-sex hormones may have more permanent effects, even if discontinued (Seal, 2016). More caution may need to be taken in this population when deciding on medical treatments that may have irreversible effects given the presence of ASD-related deficits in future thinking and planning. Because it is often harder for an adolescent with ASD to comprehend the long-term risks and implications of gender-related medical interventions, consenting for treatment may be more complex in this population. It is important for the clinician to develop a specialized consenting plan for an adolescent with ASD and GD, with the benefits and risks presented in a concrete manner, appropriate for the young person's cognitive and communication abilities. If hormone treatment is initiated, it may be helpful in some adolescents to start with lower doses and increase more gradually. Attention should be given to how ASD-related sensory issues and problems with changes in routine may impact medical treatments (e.g., pill taking, injections). The Delphi group could not achieve consensus on exact criteria for commencing medical treatments in this population, but several of the key considerations offered by the Delphi team are reviewed in the Discussion section (paras. 3–4).

Medical Safety

Adolescents with ASD and GD may pose a higher risk for medical compliance and medical safety. Young people with this co-occurrence may have difficulty following a specific medical protocol. For example, it may be more challenging for some adolescents with this co-occurrence to remember to take medications, maintain regular medical checkups, and refill prescriptions. Some may struggle with making safe decisions, such as taking the appropriate (prescribed) dose of hormones/medications or obtaining hormones/medications through a doctor, rather than illegally and/or from abroad. Adolescents with this co-occurrence often have unrealistic expectations from treatment and medical interventions, including the belief that hormones alone will result in a perfect/complete transition. Unrealistic thinking about the transformational possibilities of medical interventions may be followed by disappointment/hopelessness, when a young person's expectations for their body (or others' perceptions of them) fall short of reality. Medical safety issues may be even more complex when an adolescent with ASD has lower cognitive skills and/or significantly impaired communication skills.

Risk of Victimization/Safety

These youth are at high risk for being bullied and exploited and for being victims of violence. Some struggle with gender transition, making them less likely to "pass" as their affirmed gender, which may increase their risk for victimization. ASD-related deficits can make it difficult for them to consider the safety demands of social and romantic interactions, such as the implications of nondisclosure of transgender status in romantic encounters and meeting/being in potentially unsafe locations. They may be less aware of the relative safety level of different settings/situations (e.g., when in a group of supportive friends in locations that are transgender friendly vs. walking alone at night in an unfamiliar setting). In addition, societal prejudice/victimization, combined with poor coping strategies, detail-oriented and rigid thinking, and social difficulties/isolation may contribute to suicidal ideation.

Young Adulthood

Because transition to adulthood is a particular challenge for adolescents with ASD and because skills necessary for young adult life must be practiced during the school-age years (Howlin & Moss, 2012; Parsi & Elster, 2015), the Delphi team offered some commentary on topics bridging into young adulthood (employment and romantic relationships). These areas are included so that clinicians may provide targeted psychoeducation and therapeutic supports aimed at helping the young person navigate these challenges in their transition to adulthood.

School and Employment

Youth with ASD or GNC/GD may have more difficulties at school or in the workplace due to related challenges and/or stigma; a co-occurring diagnosis of ASD and GNC/GD often compounds these difficulties. Young people with the co-occurrence may have more problems navigating their gender presentation at work or in school and may be less aware of the potential safety risks and how others are perceiving them. Finding and maintaining a job and developing a career is challenging for many people with ASD, and with additional GNC/GD-related issues of stigma/bias (i.e., hiring/firing practices), they may have even fewer job opportunities.

Romantic Relationships

It can be difficult for a young person with co-occurring ASD and GD to understand why potential romantic partners might feel and respond differently to a transgender person regarding issues of dating and sexual attraction. GD youth without ASD more easily comprehend the social nuances of being transgender and dating, whereas a young person with GD and ASD may struggle to understand why a potential partner does not just accept them as their transitioned/intended gender. It can be challenging to help people with this co-occurrence understand that their medical and dating/romantic decisions affect the life of their romantic partner as well. They may struggle to understand the implications of failing to disclose their transgender status to a romantic partner and that gender transition mid-relationship might be hard for the other person to accept. These young people may have increased difficulty finding an understanding partner who can accept both ASD and GD. Although the dating pool may be narrowed for these individuals, there may be some structure for finding a partner within specific groups, such as a group of people with ASD, who themselves may be less concerned with GD in a potential dating partner.

DISCUSSION

This study found that a group of international clinicians and researchers, highly experienced in working with adolescents with co-occurring GD and ASD, were able to achieve consensus around a broad set of initial clinical guidelines for working with this population. Study participation rates reflect the importance of this clinical inquiry, as the overall participation rate of clinicians/researchers who met "expert criteria" was 85%, and 73% of the consensus panel participated in both rounds of the Delphi procedure. Several primary themes emerged in the consensus guidelines. Participants emphasized the importance of screening for ASD among gender referrals and the importance of screening for gender issues among ASD referrals. There was

acknowledgment that the assessment and intervention aspects of care must often overlap, as ASD-related treatment supports the ability for adolescents to consider different gender-related options/outcomes, contemplate future implications, and self-advocate for what they need regarding gender. The panel noted a more extended diagnostic process for many adolescents with the co-occurrence while they agreed that many adolescents with the co-occurrence are ultimately over time found appropriate for gender transition services.

The Delphi group did not reach consensus on several key clinical issues. Although prior literature has reported that in *some* adolescents, apparent overfocused interest in gender-related imagery/concepts appears to have driven the report of GD (de Vries et al., 2010), only 64% of the panel had experienced this clinical phenomenon, and so it was not included in the guidelines. A majority of participants noted that in some cases gay or lesbian adolescents with ASD may concretely assume that their sexual attraction to the same gender implies that they are a different gender. However, several Delphi participants reported never experiencing this clinically. Most participants emphasized the particular challenges that ASD adds to GD, though some described potential protective effects related to ASD profiles, noting that adolescents with ASD may be less aware of social bias or social expectations and may therefore be less worried about how others may react to their transition or gender presentation. This concept has been previously discussed in the literature, related to the finding that children and adolescents with ASD and GD symptoms had less parent-reported anxiety than children with GD and other neurodevelopmental disorders (Strang et al., 2014). Although most participants noted that adolescents with this co-occurrence may pose higher risk for medical safety and treatment compliance, some participants noted that some young people on the autism spectrum may have increased treatment adherence related to their strength in following routines exactly.

A key area of divergence between Delphi participants was around the question of specific criteria for commencing medical interventions. Some participants endorsed the importance of adolescents experiencing their affirmed gender in daily life (i.e., living as their affirmed gender) in at least some settings (e.g., at home, in gender group therapy, etc.) prior to commencing medical treatment. These participants felt that the experience adolescents with ASD gain by living as their affirmed gender in at least some settings helps them to assess whether gender transition (and medical treatments) are the best fit, and therefore allows them to more confidently consent for treatment. However, other Delphi participants were concerned that requiring adolescents to “live as” their affirmed gender prior to beginning medical treatments is an inappropriate barrier. Of those who advocated a more flexible approach around commencing treatment, some noted that some adolescents with ASD struggle

significantly to get started with gender affirmation/transition until they feel that their medical needs have begun to be addressed. Some Delphi participants noted that the executive function and adaptive challenges of many teens with ASD often interfere with their ability to move forward with outward expressions of gender affirmation/transition and that commencing requested medical treatments may be appropriate if the teen’s experience of GD and gender-related needs are clear, even when there are few (or slowly progressing) outward signs of gender transition/affirmation.

Some Delphi participants emphasized the importance of considering the broad range of gender-related experiences/expression that are present in many individuals with GD and ASD when considering medical treatments, and carefully avoiding expectations/biases, such as that gender must be binary (e.g., gender is male or female) or that outward gender expression and inner experience of gender must be clearly parallel. From this perspective, some Delphi participants encouraged more flexible approaches to medical treatments to address an individual’s specific, and sometimes nonbinary, needs; for example, an individual who feels the need to suppress male-typical characteristics but who does not wish to increase female-typical characteristics could be considered for antiandrogen medication without estrogen. Given the complexity of the many treatment factors highlighted by Delphi participants, the Delphi method did not produce simple consensus statements around when and how to provide medical treatment in this population. Future work should aim to synthesize the different, and in some cases seemingly competing, treatment considerations and emphasize longitudinal treatment outcome studies in this population to better inform treatment decision-making approaches.

This study has several limitations. First, although we employed an intensive procedure to locate clinical and research expert participants internationally, a majority of participants were from the United States, and the remaining participants were from the Netherlands. In addition, although a diverse group of professionals are represented (e.g., psychologist, psychiatrist, etc.), a majority of our participants were affiliated with academic medical centers, and we did not include key stakeholders such as adolescents with the co-occurrence and their families. Second, the study focused on a restricted age range (puberty age through age 19). Although many of the recommendations may also be useful for adults with GD and ASD, additional guidelines must be developed to address adult-specific issues such as decision making around surgical procedures, which generally do not occur until the age of majority. Development of clinical care guidelines for prepubertal children is also clearly an important future direction. Finally, because these guidelines generally rely on some level of verbal communication with the adolescent, they are appropriate for individuals without severe intellectual disability or severe language disorders; cognitive and language impairments

that make communication about gender needs, the nature of medical treatments, and the future implications of treatment more challenging (or impossible) were not addressed in this current work. This limitation was highlighted in the Delphi procedure, as participants expressed frustration with the lack of appropriate assessment approaches for supporting the needs of individuals with more severe cognitive/language impairments.

Several additional directions for research are recommended. The appropriateness and utility of current gender assessment tools should be evaluated in individuals with ASD, and as necessary, modifications should be made to existing assessment instruments, or new instruments created to accommodate the communication and thinking styles of people with ASD. There is also a need for ASD-specific gender-related intervention materials, which would translate more abstract gender concepts into more concrete language/imagery. Finally, given executive function and social cognition weaknesses in ASD, as well as cognitive and communication deficits in some individuals, there is a need for developing ASD-specific methods for obtaining and assessing consent for medical-related gender treatments.

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