TREATMENT GUIDELINES FOR ADOLESCENTS WITH GENDER DYSPHORIA

THE MINISTRY OF HEALTH
JUL 2025

CONTENTS

I. INTRODUCTION

Adolescents face continuous change and development in their personal, social, educational and occupational lives. Adolescents with gender dysphoria come to healthcare services with a set of needs unique from those of either children or adults. From a cognitive viewpoint, they have an increasing capacity to consider concepts of identity, gender and sexuality. In the physical aspects, the changes of puberty may heighten unwanted aspects of their gender.

Gender dysphoria itself has both a medical and social dimension. Societal views of gender and gender-related behaviours continue to shape the world around the adolescent, and greatly influences their own self-image, well-being, and choices. These views interact with the physical changes that medical and surgical treatments bring, and alter how adolescents present themselves and how society interacts with them.

Against this backdrop, adolescents experiencing gender dysphoria begin to make choices about their gender-related appearance, behaviour and healthcare. These choices are complex and highly individual. Healthcare professionals can help by providing safe and effective medical care. Regardless of their eventual choices and outcomes, adolescents benefit from the experience of being carefully listened to, given appropriate medical advice and responded to with compassion.

These guidelines were written with this principle in mind, and aims to assist healthcare professionals when engaging their young patients in this crucial aspect of their lives.

While the term “parents” is used throughout these guidelines, we acknowledge that family structures may vary. Some adolescents with gender dysphoria may be living in a single-parent household or with their legal guardian. The term “parents” should thus be interpreted to include single parents or legal guardians where appropriate.

II. SUMMARY OF RECOMMENDATIONS

Adolescents here refers to young people who have reached puberty (Tanner Stage 2) and who are less than 21 years old, the age of majority in Singapore. These guidelines should be read in conjunction with the "Treatment Guidelines for Children with Gender Dysphoria" (MOH 2024).

1. Gender dysphoria should be diagnosed with standard criteria, and this includes a longitudinal history of experiences and observations from the adolescent and the family.

2. A multidisciplinary team-based approach is recommended for holistic care and support for adolescents and their parents at every stage from assessment to diagnosis and intervention.

3. There should be a psychiatric and psychosocial evaluation which explores comorbid psychiatric conditions, differential diagnosis for the presentation of gender dysphoria, and conditions which may affect the understanding of gender and gender dysphoria.

4. There should be an assessment of the adolescent and their parents to understand their psychosocial stresses and supports, and their perspectives on gender and gender dysphoria.

5. There should be a psychiatric and psychosocial evaluation of the capacity of the adolescent to make decisions regarding medical and surgical treatments for gender dysphoria.

6. Psychological care of adolescents with gender dysphoria may include individual or family sessions. The aims of these sessions vary according to the identified needs of each case.

7. Medical treatments of gender dysphoria, namely pubertal suppression (PS) and/or gender-affirming hormonal therapy (GAHT), can have permanent and wide-ranging effects, and the decision to undertake them should be made by the individual themselves after the age of majority. PS is not recommended due to the current lack of evidence surrounding safety or clinical effectiveness. GAHT may be offered to an adolescent over the age of 18 years old only in exceptional circumstances where there is clear evidence of benefit or harm reduction (which may include medical/mental health grounds), and agreement from the TRP. Informed consent must be obtained from the individual and both parents (unless one parent is uncontactable) or a legal guardian (if both parents are not available).

8. The decision to offer any GAHT and/or gender affirming surgery (GAS) to an adolescent should be made by a Treatment Review Panel (TRP) as described in these guidelines.

9. A high priority should be placed on avoidance of risks of long-term hormonal treatment because of the risks of side effects and irreversible consequences associated with medical therapy. Patients on hormonal treatment should be adequately monitored.

10. GAS for gender dysphoria should only be offered to people after the age of majority. In exceptional circumstances where there is clear evidence of benefit or harm reduction (which may include medical/mental health grounds) and agreement from the TRP, GAS may be offered to an adolescent over the age of 18 years old.

11. Adolescent patients and their parents should be informed about the available options, expected outcomes, risks and long-term care of any treatments offered. This should include effects on fertility and options for fertility preservation.

III. RESEARCH ON ADOLESCENT WITH GENDER DYSPHORIA (GD)

Research on adolescents with GD is lacking. The lack of robust research in this area leads to the uncertainty in offering advice and treatments to patient and their families.

Factors contributing to paucity of research:

- Adolescents with GD and their families experience various forms of stigma, which may result in making them less likely to consent to research studies because of confidentiality concerns.
- Clinical studies are often from specialist services and study populations may not be representative of the general population of adolescents with GD.
- Population studies lack ability to be accurate about those who have a true diagnosis of GD.
- Many studies have short follow-up periods.
- Longer term outcome studies suffer from loss to follow-up, especially in the group where no medical treatment was offered. The outcomes of this group, often excluded from medical treatment because of greater mental health needs, are not known.
- The clinical services and social support for GD varies greatly by country and contribute to lack of consistency in psychosocial outcomes.
- People with GD experience distress from multiple sources apart from the condition itself. These are hard to quantify or control for in research, so it is difficult to conclude treatment effects.
- There may be ethical difficulties in running randomised controlled trials on adolescents with GD so most studies are observational, with waitlist or non-GD population norms as comparators.

Clinicians are therefore encouraged to review new literature and engage in research with this group of patients to develop greater clinical understanding of GD in this population.

IV. TREATMENT REVIEW PANEL (TRP)

The TRP is an appointed panel of healthcare professionals which makes a decision on the inclusion of GAHT or GAS in the treatment plan of an adolescent with GD based on multidisciplinary consensus. This is independent of the role of the multidisciplinary team involved in the care of children and adolescents with GD.

Change of gender should be considered a permanent change which has wide-ranging and deeply personal effects on the individual in the longer term. These are not well-understood by current research, and some may not be easily appreciated by an adolescent. Therefore, medical and/or surgical treatment should generally not be offered to adolescents. Such treatments may be offered to an adolescent over the age of 18 years old only in exceptional circumstances where there is clear evidence of benefit or harm reduction (which may include medical/mental health grounds) and agreement from the TRP.

For the large majority of persons with GD, decisions to medically transition should be made by persons themselves when they are over the age of 21 years. 21 years is the age of majority in Singapore and reflects societal norms for making decisions for oneself. Additionally, persons with GD must also have sufficient mental capacity to make decisions and give informed consent.

There is a wide range in individual circumstances and conditions which may constitute clear evidence of benefit or reduction of harm. Given that there are adolescents who have already received appropriate assessment and psychosocial interventions for GD when they were children (before Tanner Stage 2) and that adolescents have increasing decision-making ability as they mature, there will be adolescents for whom medical (hormonal) or surgical treatment may be considered necessary and appropriate.

For such cases, a TRP should examine the case and develop the treatment plan, taking into consideration the views of the patient and parents. There are no uniform criteria that can be applied to all cases. The overall well-being and safety of the patient is the main consideration.

The TRP should minimally be composed of:

1. Attending psychiatrist;
2. Attending psychologists, counsellors or social workers (as many as were involved);
3. Attending endocrinologist or paediatrician;
4. Attending surgeon if surgical options are being considered; and
5. One more non-treating medical specialist from any of the above groups.

If it appears likely that the patient will soon need an adult endocrinologist as part of a future treatment plan and has not seen one yet, an adult endocrinologist should be invited to the panel discussion.

The respective sections outline the skill sets needed for the members. The clinicians should have adequately assessed the patient in their respective areas before the meeting. The purpose of the meeting is to reach a consensus about the treatment to be offered to the adolescent patient. Treatment for the adolescent patient may commence once a consensus has been reached by the TRP. All medical, psychosocial and surgical factors should be presented at the meeting. The patient and both parents should be invited into the meeting for further discussions and communication as necessary.

The decision should be conveyed to the patient and parents by the attending paediatrician/endocrinologist if hormonal therapy will be provided, or the treating surgeon if GAS will be provided. Signed informed consent from the patient and parents should be taken before commencing any medical or surgical treatments.

In the above situations where parents are involved, there may be situations when one parent is not contactable, e.g. living apart or refuses contact. In these cases, consent by one parent is acceptable if reasonable effort has been made to contact the other parent. If both parents are not contactable, consent by the legal guardian is acceptable.

The treatment suggestions represent the views of the involved professionals and are not binding on other doctors the patient may consult. For example, if the TRP with Endocrinologist A offers hormonal treatment and the patient later consults Endocrinologist B, Endocrinologist B is not obliged to prescribe the same treatment. The operational conduct of the meeting, including logistics and charging, may vary according to the involved clinicians and hospitals. Patients and parents should be advised accordingly.

If the decision to start hormonal or surgical treatment is made, regular review of the patient's condition, and the patient's and/or their parents' willingness to continue treatment, should be carried out during the period of transition. Any major changes should be brought to the attention of the TRP to review the decision to continue the process of transition.

V. PSYCHIATRIC MANAGEMENT

1. GUIDING PRINCIPLES

Psychiatrists have the role of assessing adolescents presenting with features of GD in order to make a diagnosis, and to identify and manage concurrent psychiatric comorbidities. Psychiatrists should also assess and assist the understanding of the adolescent with regard to transition-related choices and decisions related to medical and surgical treatment.

Although adolescents are maturing and developing independence, their parents are still very much a part of their lives and parental perspectives of this condition and the treatments offered are an important part of the assessment as well. Psychiatrists should work closely with allied health professionals in these assessments and discussions.

2. PSYCHIATRIC ASSESSMENT

Psychiatrists are advised to take a full psychiatric history including the following areas.

A. Diagnosis

- Follow standard DSM-5 diagnostic criteria and document accordingly, the specific examples of each symptom and the duration of each.
- Examine for presence and absence for each symptom of GD.
- Note the behaviours and symptoms arising from distress about their gender.
- Social transitioning behaviours: onset, extent and examples, periods or areas of non-transitioning, and reaction to these.
- Persistence over time: age of onset, increasing distress during puberty, periods of time when symptoms abated. There is evidence that more severe gender variant behaviour in childhood and earlier social transitioning is associated with persistence of GD. (Wallien and Cohen-Kettenis, 2008; Steensma at el., 2013)
- Patients present for treatment at different ages. Patients who were first assessed during childhood and adolescence will benefit from a longer period of assessment and exploration.
- Psychosocial functioning as a whole—problems faced by patient beyond gender-related distress.

B. Factors which contribute to development of gender identity

- Childhood developmental history.
- Traumatic childhood and adolescent experiences, especially early sexual experiences.
- Family history and relationships: gender roles during childhood, including which gender was child raised up as when growing up, role models, sexual exposure, and sexuality in the family.
- Physical health problems and symptoms suggestive of ambiguous genitalia.

C. Conditions related to the understanding of gender and gender identity

These conditions should be assessed for because they may be differential diagnosis or comorbidities with GD. Prominent examples include:

- Intellectual disability
- Autism spectrum disorder (ASD)
- Depression/anxiety
- Post traumatic stress disorder (PTSD)
- Psychosis
- Eating disorders
- Body dysmorphic disorder
- Borderline personality disorder traits (often related to the above Axis I conditions)

The prevalence of comorbidity is high, particularly mood and anxiety disorders. Comorbid diagnosis may occur independent of GD, may interact with the GD symptoms and may affect its treatment. Results from prevalence studies of comorbidity vary greatly depending on the population studied. The most reliable diagnostic data come from clinical samples of specialised centres, but the findings are likely not generalisable to the wider population of people with GD. (Carmichael et al., 2021; de Vries et al., 2011; Tordoff et al., 2022)

D. Standard assessment tools

Clinicians are advised to use standardised rating scales to better quantify problem areas and improvements, especially when there are comorbid conditions.

- Clinical measures of psychosocial functioning such as clinician-rated Children's Global Assessment Scale (CGAS), parent-rated Child Behaviour Checklist (CBCL)/youth rated Adult Behavioural Checklist (ABCL).
- Measure of psychiatric distress: Patient Health Questionnaire-9 (PHQ) 9 or Beck Depression Inventory (BDI) for depression, General Anxiety Disorder-7 (GAD7), State-Trait Anxiety Inventory (STAI) for anxiety.
- Other measures suggested by initial assessment: Intelligence Quotient (IQ), learning, ASD assessment.
- Measures of GD distress: Utrecht Gender Dysphoria Scale—Gender Spectrum (UGDS-GS) (McGuire et al., 2020) or Gender Identity/Gender Dysphoria Questionnaire for Adolescents and Adults (GIDYQ-AA) (Deogracias et al., 2007) may be useful and are further discussed in the section on Psychosocial Treatments

E. Assessment of parents

- Both parents should be interviewed for corroborative history on all the same areas. Although the adolescent patient is capable of reporting their own experiences, both parents' observations and perspectives should be elicited for an accurate and holistic assessment.
- An assessment should be made about the parents' awareness of their child's symptoms and problems, their own views on gender, and their mental health literacy.

- Parents should be interviewed to understand the dynamics of decision-making in the family.
- Family support for the adolescent is important for the long-term well-being of the adolescent. In the presence of disagreement between parents about aspects of GD diagnosis and management, the clinician should undertake further family assessment to understand the situation more clearly before concluding the diagnosis or making treatment recommendations.

F. Further points for assessment

- In view of implications for psychosocial, medical and surgical interventions, clinicians are advised to take the necessary time to gather all relevant information and perform careful assessments before making this diagnosis. Published data from specialised centres indicate assessment periods of 12–18 months. (Carmichael et al., 2021; de Vries et al., 2011; Tordoff et al., 2022)
- The information above may be gathered by any treating healthcare professional as appropriate to the clinical setting. In public hospitals, there is often a multidisciplinary team; in private clinics, the psychiatrist may work alone or with other independent professionals.

3. PSYCHIATRIC TREATMENT

- Every assessment and treatment plan is highly individualised, and should take into account the patient as a whole, and not only the absence or presence of a GD diagnosis.
- Comorbid psychiatric diagnosis should be treated. Psychiatric illnesses are often multifactorial. The patient should be continually assessed to understand the contribution of distress from GD itself and other factors; for example, a person may have genetic risks for depression alongside stigma experienced by persons with GD.
- Handover of care to adult psychiatry teams, when necessary, should be planned in advance, discussed with the patient and their family, and cover all aspects of multi-disciplinary care.

4. DECISION FOR MEDICAL/SURGICAL TRANSITIONING

Psychiatric assessment is important in the decision-making process for medical/surgical transitioning. Attending physicians should engage adolescent patients and their parents in discussions about such decisions. These sessions aim to provide advice and to make an assessment.

I. General considerations

- Diagnosis by DSM-5 criteria and capacity to consent does not imply the need for medical/surgical treatment.

- Because medical transitioning can possibly cause irreversible changes to the body, this would involve considering the benefits, risks, and limitations for the patient across their lifespan.
- All adolescents with GD and their families should be offered psychosocial support to alleviate mental distress, provided with opportunities to explore gender identity and treatment options in relation to GD symptoms.
- Social and family situations with high levels of discordance and disruption are barriers to positive transitioning outcomes and should be addressed early.
- Healthcare professionals should explore the reasons for requesting medical/surgical transitioning with the adolescent and their parents.
- Areas to explore include, but are not limited to, adverse mental health outcomes as a result of not transitioning, potential reduction in dysphoria, social milestones related to timing (National Service, school/employment environment), and tolerance of transgender individuals. (Steensma et al., 2013)

II. Capacity to give consent

The capacity of adolescents to understand the medical treatments offered should be periodically assessed and documented. Under the Mental Capacity Act, adult individuals aged 21 and above are presumed to have capacity unless proven otherwise. This principle applies to parents consenting to GD treatment on behalf of their child. However, if there are concerns about a parent's decision-making ability, their mental capacity should be assessed before they consent to their child's treatment. This should be done both before and concurrently with medical consults so that information about available treatments is appropriately conveyed to facilitate informed decision making. Adolescents should be advised to take time to carefully consider their treatment choices. Clinicians should likewise take adequate time to assess that adolescents have adequate mental capacity for the decisions they are about to make.

Patients should:

- Demonstrate understanding of the condition GD: understand its features and effects on the adolescent's life.
- Demonstrate understanding of the treatments offered, including realistic ideas of treatment outcomes, permanence of changes with hormonal treatments and surgery, and implications for fertility.
- Demonstrate ability to weigh risks and benefits: have intellectual capacity and mental health literacy, demonstrating ability to consistently retain information given to them, use it to discuss their choices thereafter and make other health and lifestyle choices.
- Not be acting under undue influence of other persons or information, whether interacting in-person or online.
- Not be having a mental illness that impinges on their decision-making capabilities.

III. Mental health outcomes

Clinicians should discuss and provide advice about mental health outcomes including the following:

- The current literature on mental health and outcomes after treatment with PS and GAHT is uncertain because of the lack of larger studies, long-term and consistent data.
- Evidence for PS and GAHT leading to better mental health is not consistently demonstrated even among specialised centres. (Carmichael et al., 2021; Costa et al., 2015; de Vries et al., 2011; De Vries et al., 2014; Tordoff et al., 2022; Wiepjes et al., 2018)
- There is some evidence that psychological interventions alone may improve psychosocial functioning. (Costa et al., 2015)
- There is some evidence that adolescent patients with pre-existing mental health and psychosocial dysfunction continue to have these problems one year after starting GAH. (Kaltiala et al., 2020)
- Longer term outcome data suggests that mental health problems persist in this population and should continue to be monitored for after medical or surgical transition. (Dhejne et al., 2011)
- There should also be a realistic idea of social reception to transitioning, and whether this would be detrimental or helpful to the patient's mental well-being. Attending physicians should work towards an outcome which is beneficial to the patient as a whole. (Levine, 2018)
- Data from other countries cannot be entirely applicable to Singapore. Social attitudes to individuals with GD differ, and social rejection contributes to the stress of transitioning and regret. (Wiepjes et al., 2018)

VI. PSYCHOSOCIAL APPROACH IN MANAGEMENT

1. GUIDING PRINCIPLES

It is important to adopt a person-centred and family-focused approach when working with adolescents presenting with GD. Adolescence is a developmental stage involving major changes in many aspects—biological, emotional and social—of a young person's life. Professionals working with adolescents presenting with GD should be familiar with these aspects and consider the impact of the developmental stage on the young person.

Effective and ethical psychosocial management and support for the adolescent should begin with a holistic assessment of the young person and their family. There should be continuing assessment of developments in the patient's symptoms, difficulties, perspectives and understanding of GD. Psychological intervention and support for the adolescent and their family should be provided through all phases of their medical care.

The psychosocial care of the adolescent follows on from the care of children and overlaps with the "Treatment Guidelines for Children with Gender Dysphoria". Healthcare professionals may refer to that set of guidelines for a complete overview of this area.

2. ASSESSMENT

A comprehensive psychosocial assessment of the adolescent's developmental history, including medical, family and social experiences from early formative years to prepubertal period, is important. (De Vries et al., 2014; De Vries & Cohen-Kettenis, 2012)

Detailed history taking of the adolescent's gender identity and gender-variant feelings over the developmental lifespan is required. These can include recollections of childhood gender-variant feelings and behaviours, and their understanding of gender roles and expectations. While gender variant feelings or behaviours may not be uncommon in childhood, the impact of such feelings and behaviours on their current state should be explored carefully. The individual's understanding and expression of distress is affected by the interplay of their own experiences, their family's dynamics and characteristics, and the societal and cultural norms they live with. Many of these factors will change over time. The therapist should work with the psychiatrist to make assessments over multiple time points.

Gender history of the individuals may include the following factors (Carroll, 2007):

- Type of play as a child (conforming or non-conforming).
- Preferred dress/experiences of cross-dressing.
- Reactions of others towards individual's gender behaviour.
- Experience of puberty or sexuality. (Smith et al., 2005)
- Contact with other gender non-confirming individuals. This may be in person or online.

- Aspects of self that are perceived to be masculine or feminine. (Bower, 2001)
- Individual's goals regarding gender transitioning.

Other comorbid mental health conditions are common in GD. These include depressive and anxiety disorders, suicidal behaviours, personality disorders, substance use disorder and eating disorders (Cole et al., 1997; Lobato et al., 2009; Meyer, 2003). These comorbid psychiatric conditions may be a result of factors such as social difficulties and discrimination, stigma (Whittle et al., 2007), and self-esteem concerns, as well as adjustment reactions to treatment and transitioning processes. This is true even for individuals who are content with their treatment choices and outcomes.

GD has also been found to occur concurrently in individuals diagnosed with neurodevelopmental disorders such as autism spectrum disorder (ASD). The presence of ASD has significant implications on the diagnosis of GD and the therapeutic goals of psychosocial interventions. It is important for trained professionals to engage persons on the spectrum collaboratively in the process.

Regular monitoring and assessment of comorbidities are important. Psychosocial interventions and medications targeted at these comorbidities should be instituted as appropriate. In some cases, there may be a need to suspend gender affirming medical interventions if a new diagnosis is made which significantly impacts the diagnostic and treatment process, for example, the development of psychosis with delusions can affect decision-making capacity of the individual.

It is also important that the adolescents are assessed regarding their capacity in making informed decisions about their treatment, as well as their psychological and social readiness in initiating treatment.

A. Assessment tools

Psychometrically validated instruments of psychosocial and gender measures may provide additional information about the individual's presentation and experience of GD. These can be used in addition to instruments examining aspects of functioning and general well-being. While most of these tools are still under research evaluation, they can be useful to support the clinical assessment process.

The Gender Identity/Gender Dysphoria Questionnaire for Adolescents and Adults (GIDYQ-AA) (Deogracias et al., 2007) is a 27-item questionnaire that assesses the adolescents' gender identity and GD applicable for both clinical and non-clinical populations. It provides a quantitative metric that can be used in conjunction with the DSM diagnostic system.

The Utrecht Gender Dysphoria Scale—Gender Spectrum (UGDS-GS) (McGuire et al., 2020) is an 18-item instrument, revised from the previous Utrecht Gender Dysphoria Scale. It measures the level of dissatisfaction of the individual's gender identity and expression over time, as well as their comfort level with their affirmed gender identity. Although the sample has not been validated in populations below 18 years old, it can be useful as a tool for a wide group of individuals with GD when they seek medical assessment and treatment.

3. PSYCHOSOCIAL INTERVENTION

Adolescents with GD are vulnerable to other mental health challenges. These could be associated with social or family rejection, or non-affirming experiences in their community (De Vries et al., 2016; Ryan et al., 2010; Weinhardt et al., 2017). They may also have concerns or perspectives related to their gender-affirming treatment. It is beneficial for the adolescents to receive support from their parents and family members regardless of treatment preference.

Parents, family members, or immediate social support networks should be involved and the level of such support available should be examined as part of intervention. Strong social support can reduce mental health burden, improve coping and protect against the negative impact of the decision-making and transitioning process that the young person must navigate. (Bariola et al., 2015; Puckett et al., 2019) Discussions and decisions about accommodations offered to the young person in school and other relevant organisations should be made collaboratively between the young person, their family, and the organisation; so that the concerns of every party are heard and adequately addressed.

Individual psychotherapy is commonly recommended, but group therapy can also have benefits. Group therapy provides a safe and informal platform to meet other adolescents with similar experiences. While group therapy may not be directly therapeutic, it may provide an adaptive social support opportunity, especially for adolescents who lack support from their family and close friends.

The goals and methods of therapy offered to the adolescent should be explained to them clearly. Adolescents should consent to receive the therapy offered and engage actively in the therapy process. Therapy which lacks these elements is not recommended as it is unlikely to be helpful to the patient and may be detrimental to the well-being of the patient.

A. Individual psychotherapy

When an adolescent experiences distress or concerns about their gender, it can be helpful and appropriate to seek psychosocial intervention to reduce distress and improve the adolescent's well-being. (American Psychological Association, 2015; Barrow & Apostle, 2018; Craig & Austin, 2016; Malpas et al., 2018)

While there is no definite psychotherapy approach that has been established as evidence-based intervention for GD at this point in time, any form of psychotherapy provided to adolescents with GD should be welcoming and supportive. The therapist should be knowledgeable about the condition and have adequate experience or supervision in working with adolescents with GD and other mental health conditions. The adolescent seeking psychological support should also be committed to the therapeutic relationship and arrangement. Regular and stabilising contact with the therapist is necessary and should be considered as part of the preparation for medical treatment options.

The focus of therapy with the adolescent may include the following:

- Exploring and addressing concurrent mental health problems.
- Addressing problems and stresses in the adolescent's environment: peer relationships, school functioning, problems with bullying and stigma against GD.
- Facilitating open conversation and continued exploration of gender identity and gender expression, including information and discussion about sexuality issues.
- Discussing important aspects affecting people with GD including body image, social isolation, family planning and future relationships.
- Examining longer term or lifelong impact of sex reassignment treatment on self and people within the individual's social support network.

B. Family assessment and intervention

Parents and family of the young person with GD may require support to develop knowledge, build understanding and support their child. (American Psychological Association, 2015; Ehrensaft, 2018; Malpas et al., 2018; Spivey & Edwards-Leeper, 2019)

The family should be assessed in terms of their understanding, attitudes and acceptance towards GD. The Transition Readiness Assessment (Coolhart et al., 2013) is a tool which allows the adolescent patient and their family to examine and identify gaps in their knowledge and skills with regards to optimal management of GD. While it is not a formal test, it facilitates the exploration of important areas which guide medical treatment recommendations.

Therapy involving the family and caregivers can adopt a family and systemic framework, and may include the following areas:

- Provision of information to the adolescent and their family about GD, and current and future treatment options. The variety of outcomes for GD can be discussed. Families may need help to navigate the ambiguity of the outcomes, and it is important for the adolescents and their families to focus on the process and not just the outcomes of their chosen treatment option.
- Separate sessions with the parents and adolescent While patient confidentiality is important, clinicians and therapists should help their adolescent patients understand the

need to involve and engage their parents early so as to work towards discussions including major decisions in their care. For family/parents who are not receptive towards the adolescent's GD after assessment, separate sessions with the parents and adolescent are recommended. In parents-only sessions, therapists may provide psychoeducation relating to transgender issues, explore parents' beliefs on gender identity, and support the parents in processing their emotions and perspectives of this matter. It should be noted that grief and loss-related presentations may be experienced by some parents. Joint sessions with the adolescent may be recommended should the parents move to a more supportive stance.

- Facilitating continuing conversations within the family on various topics: cultural and religious beliefs, gender identity and gender expression, the impact of the adolescent's GD on their family and extended family (telling other relatives, managing the reactions of others), support needed by the adolescent and views on social transitioning.
- Families that particularly need help in negotiating their differing views about social and medication transitioning options. Such families may need help with conflict resolution and consensus-building.
- Addressing and aiding problem-solving for family stressors as well as stressors in the adolescent's environment. These may be directly related to GD or to general adolescent challenges: friendships, academic demands, and parental expectations.
- Improving family relationships and communications.
- Discussions about medical treatments should it be offered. Both adolescents and their families may experience ongoing anxieties even if they agree with the medical treatment offered. Continuous support for them should be provided in view of additional and unforeseen stressors which may arise during medical treatment of GD.

VII. MEDICAL THERAPY

Given the potential for long-term side effects and possibly irreversible changes induced by medical treatment, and the length of time typically required for a thorough examination by a multidisciplinary team of professionals, we recommend that young people should consider and consent for hormonal treatment only when they have reached the age of majority in Singapore (21 years old) and have capacity to give informed consent. Hormonal treatment may be offered to an adolescent over the age of 18 years old only in exceptional circumstances where there is clear evidence of benefit or harm reduction (which may include medical/mental health grounds) and agreement from the TRP.

A high priority should be placed on the avoidance of complications associated with long-term hormonal therapy. Handover of care to adult medical teams, when necessary, should be planned in advance, discussed with the patient and their family, and cover all aspects of the multidisciplinary care.

Hormonal treatment in adolescents generally refers to PS and GAHT.

1. PUBERTAL SUPPRESSION (PS)

(Achille et al., 2020; Claahsen-van der Grinten et al., 2021; Cohen-Kettenis, Steensma, et al., 2011; Cohen-Kettenis, Schagen, et al., 2011b; Coleman et al., 2022; Costa et al., 2016; de Vries et al., 2011; Hembree et al., 2017; Khatchadourian et al., 2014; Kreukels & Cohen-Kettenis, 2011; Mahfouda et al., 2017; Rew et al., 2021; Schagen et al., 2016; Turban et al., 2020)

Current evidence on the use of PS in the treatment of gender dysphoria in adolescents is largely based on observational studies and of low quality.

In view of the current lack of high-quality evidence surrounding safety or clinical effectiveness of PS to treat gender dysphoria, PS is not recommended. This is consistent with recently published NHS clinical policy on this topic. (National Health Service England, 2024)

2. GENDER AFFIRMING HORMONAL THERAPY (GAHT)

(Achille et al., 2020; Claahsen-van der Grinten et al., 2021; Cohen-Kettenis, Steensma, et al., 2011; Coleman et al., 2022; Hembree et al., 2017; Khatchadourian et al., 2014)

The aim of GAHT in the adolescent is to mimic the induction of puberty by a gradual introduction to sex hormones of the affirmed gender. This allows for the development of physical features of the identified gender and completion of the adolescent growth spurt in height.

Initiation of GAHT may only take place post puberty with the approval of the TRP, once the individual has reached 18 years of age. Treatment should be carried out by an endocrinologist.

3. BASELINE CLINICAL EVALUATION

A clinical evaluation should be performed, including taking a medical history and conducting a physical examination, which includes (Hembree et al, 2017):

- Past medical and psychiatric history, including any problems of pubertal development.
- Family history, particularly of conditions that may confer a higher risk for hormonal therapy (e.g. deep vein thrombosis for transgender female patients being started on oestrogen).
- Medication history, including any previous hormonal therapy.
- Risk assessment for hormonal therapy (e.g. history of venous thromboembolism, cardiovascular risk factors, liver problems, cancer, obstructive sleep apnoea).
- Social and developmental history, level of education, occupation, current level of functioning, relationship with family and degree of social transition.
- General physical examination, including height/weight/blood pressure, pubertal staging and examination of secondary sexual characteristics including external genitalia, looking for evidence of previous hormonal therapy and presence of disorders of sexual differentiation.

4. BASELINE INVESTIGATIONS

Before starting medical therapy, laboratory tests should be performed to enable a baseline evaluation of sex hormones and medical risk assessment, as hormonal therapy impacts other areas of health such as cardiovascular risk and bone health. (Hembree et al, 2017)

Such tests can include:

- Full blood count
- Electrolytes, renal function, liver function including albumin
- Total testosterone, oestradiol, luteinising hormone, follicle stimulating hormone
- Prolactin (trans-females)
- Sex hormone binding globulin
- Fasting lipid panel, fasting glucose
- Calcium, phosphate, 25-hydroxy vitamin D
- Bone mineral density scan (DXA scan)
- Bone age study

Other tests such as coagulation profile and thyroid function can be considered in the appropriate setting based on the clinical findings. Routine karyotyping of the adolescent with GD is not required unless there are specific clinical features that determine this to be necessary, e.g. clinical features of Klinefelter Syndrome.

If a disorder of sexual development is suspected on history and clinical examination, appropriate investigations can be carried out.

Gonadotropin and sex hormone concentrations reflect the stage of puberty attained. However, serum hormone levels may be affected by self-administered exogenous hormonal drugs such as oestrogen, spironolactone/cyproterone.

5. PROTOCOL FOR GENDER AFFIRMING HORMONAL THERAPY (GAHT)

Pubertal induction with GAHT can be carried out in post-pubertal transgender adolescents as follows (Hembree et al., 2017):

A. Transgender females

Oral 17β-oestradiol:

- 1 mg/day for 6 months, then 2 mg/day thereafter
- Adult dose: 2–6 mg/day

Transdermal patch 17β-oestradiol:

- Can initiate with 25 mcg/24 hr and increase to adult dose in 3–6 months
- Adult dose: 50–200 mcg/24 hr

Anti-androgens (e.g. spironolactone 50–300 mg daily, cyproterone 12.5–50 mg daily) or GnRH agonists can be used to suppress the effects of endogenous androgens.

B. Transgender males

- Intramuscular testosterone cypionate or enanthate 50 mg every 2 weeks for 6 months, then 75–100 mg every 2 weeks
- Adult dose: Intramuscular testosterone cypionate or enanthate 100 mg every 2 weeks

6. RISKS

Apart from the general risks associated with all medications, specific risks associated with gender-affirming hormonal therapy for GD are as listed below (Hembree et al., 2017):

A. Transgender females

- Oestrogen: thromboembolic disease, macroprolactinoma, breast cancer, coronary artery disease, cerebrovascular disease, cholelithiasis, and hypertriglyceridemia.
- Anti-androgen: spironolactone—hyperkalaemia and hypovolemia; cyproterone acetate—liver injury and hyperprolactinaemia.

B. Transgender males

- Testosterone: erythrocytosis (haematocrit >50%), severe liver dysfunction (transaminases, threefold upper limit of normal), coronary artery disease, cerebrovascular disease, hypertension, and breast or uterine cancer.

7. MONITORING

Monitoring should be carried out by the attending paediatrician or endocrinologist, where applicable. Monitoring of the following parameters is advised at least until pubertal induction is complete. (Hembree et al., 2017)

Every 3 months:	Height, weight, blood pressure
Every 6 months:	Total testosterone/oestradiol/25-hydroxy Vitamin D Prolactin (in transgender females) Haematocrit and lipid profile (in transgender males)
Every year:	Bone mineral density scan (DXA scan)
	Bone age study if indicated

After pubertal induction is complete and patient is on maintenance therapy, the monitoring should be similar to the monitoring for adults with GD on medical therapy.

A suggested guide to target hormone levels (based on target levels for adult patients) during maintenance gender affirming hormonal therapy is as follows:

A. Transgender Females

During maintenance therapy, target serum oestradiol and testosterone levels are those of a normal adult pre-menopausal female (oestradiol 367 to 734 pmol/L [100 to 200 pg/mL]; testosterone <1.7 nmol/L [< 50 ng/dL]).

B. Transgender Males

During maintenance therapy, target serum testosterone levels are those of a normal adult male (assay dependent).

For parenteral testosterone enanthate/cypionate, testosterone levels (measured midway between injections) are targeted at the mid normal range for a normal adult male (approximately 14 to 24 nmol/L [400 to 700 ng/dL]).

For parenteral testosterone undecanoate, testosterone trough levels (measured just before the following injection) are targeted at the lower end of the normal adult male range (assay dependent).

For transdermal testosterone, testosterone levels should ideally be measured more than 1 week after applying the gel daily and at least 2 hours after application.

8. FERTILITY COUNSELLING

Fertility counselling must be discussed with adolescent and both parents prior to starting puberty blockers and again on initiation of sex hormone replacement.

The discussion should include:

- The potential for long-term compromised fertility after medical therapy, even if medical therapy is stopped.
- The option of fertility preservation and the prevailing policy regarding fertility preservation.

It is important to recognise that an adolescent's understanding of fertility may be different when they are adults. Doctors should bear in mind that young people may not desire or plan

for children during adolescence but may change their minds as they grow into adulthood, regardless of their identified gender, sexuality or final physical appearance.

PS suspends gamete maturation, so that the oocytes remain dormant in phenotypic females and spermatogenesis is halted in phenotypic males. Post-pubertal phenotypic males can be counselled regarding semen harvesting and sperm cryopreservation after puberty has commenced. Post-pubertal phenotypic females can be counselled regarding oocyte cryopreservation, which will require fertility experts and the patient's maturity to engage with gonadotropin pre-treatment and transvaginal extraction.

Fertility preservation in Singapore is regulated by the prevailing (i) Healthcare Services (Assisted Reproduction Service) Regulations and (ii) License Conditions for Licensees providing Assisted Reproduction Services, administered by the Ministry of Health, Singapore.

9. PATIENTS WITH SELF-PROCURED HORMONAL TREATMENT

Patients may report taking hormonal treatments without medical prescription, many of which are purchased online. It is not possible for doctors to ascertain the accuracy of their report, or to establish the source and quality of these products. Contamination and inappropriate dosing regimens can lead to safety risks and serious side effects. Such patients should be assessed for suitability for prescription of hormones as above and provided with appropriate medical advice about their reported medication intake.

VIII. GENDER AFFIRMING SURGERY (GAS)

GAS refers to a range of procedures designed to align a person's body with their gender identity. These include:

- Gonadectomy surgery: removal of testes and ovaries. This is also an irreversible form of sexual sterilisation.
- External genitalia surgery: creation or removal of male or female external genitalia, such as the penis, scrotum, labia, and vulva.

There are other procedures related to features of gender which do not involve gonadectomy or external genitalia surgery. These include:

- Chest surgery: breast reduction, nipple and areolar surgery, breast augmentation and implants.
- Masculinisation/feminisation procedures: facial surgery, laryngeal prominence, jawline, forehead, nose etc.

Given the lifelong implications and possibly irreversible nature of surgical treatments, the limited information about optimal timing of GAS and the physical risks involved in surgical procedures, we recommend that young people should consider and consent for GAS only when they have reached the age of majority in Singapore (21 years old) and have capacity to give informed consent for themselves.

In exceptional circumstances where there is clear evidence of benefit or harm reduction (which may include medical/mental health grounds) and agreement from the TRP, GAS may be considered for an adolescent over the age of 18 years old. For such cases, the adolescent must have had a thorough assessment by the TRP, and the decision to offer surgical treatment should be agreed on by the TRP as described in these guidelines.

The most common surgical specialties offering these procedures include Plastic, Reconstructive & Aesthetic Surgery, Urology, Gynaecology, Otolaryngology and Oral & Maxillofacial Surgery.

It is recommended that surgeons who perform GAS have:

- Training and documented supervision in GAS;
- Maintenance of an active practice in GAS;
- Knowledge about gender diverse identities and expressions;
- Continuing education in the field of GAS; and
- Tracking of surgical outcomes.

Provision of accurate information to adolescents and their families is an important role for surgeons working with this age group. Even when no surgery is being offered, the discussion allows adolescents and their families to make better-informed choices and future plans. Surgeons should advise patients and their families on the following:

- The various procedures available, their purpose and expected outcomes; the risks and medical implications of each procedure, including the need for post-operative care and long-term follow-ups for many of the procedures.
- Patients would generally require 12 months or longer of GAHT to achieve the desired surgical result for GAS and should not be regarded or performed as parallel/analogous treatments. Since the veracity and quality of previously administered GAHT, whether prescribed elsewhere or self-procured, cannot always be verified, only GAHT prescribed and monitored by the attending physician will be counted towards the required 12-month period.
- Patients are generally required to live as the identified gender for at least 12 months before GAS. This 12-month period allows the patient to be more certain about the decision to permanently change the physical appearance, and for a more gradual transition to a new gender role in society. In addition, it provides a sufficient time window for the TRP to observe any potential fluctuations in gender identity, monitor patients' personal coping and well-being, and ample time for patients to confirm their decision regarding GAS, considering its lifelong implications.
- The process of review, including a mandatory ethics review by a Clinical Ethics Committee (CEC), before a patient can undergo Sex Reassignment Surgery (SRS)[1].
- The implications of each procedure for change of gender marker on legal identification documents e.g. NRIC and passport, in alignment with prevailing requirements for sex change on legal identification documents.
- The implication of irreversible sexual sterilisation. Surgeons should bear in mind that young people may not desire or plan for children during adolescence but may change their minds as they grow into adulthood, regardless of their identified gender, sexuality or final physical appearance. All patients, along with their parents/legal guardian and potential future spouses, should be referred to receive counselling on reproductive options before consenting to surgery.
- There are potential severe and life-long risks associated with GAS. These include complications of the urinary and gastrointestinal systems, and external/cosmetic disfigurement.
- The commercialization and lower costs of GAS in neighbouring countries may prompt patients to seek GAS overseas, though they may not receive adequate counselling due to language barriers and short duration of assessment. This can result in regrets due to severe complications, incomplete surgery or mismatched expectation with outcomes.

[1] Sex Reassignment Surgery (SRS) represents a subset of GAS and refers to any surgery that is done specifically towards converting from a legal male to female and vice versa as recognised by ICA. These surgeries are the permanent and irreversible removal of reproductive organs (ovaries, testicles, uterus) and creation of the intended external genital anatomy (phallus, scrotum, labia, introitus).

- There are currently limited medical and surgical options should there be transitioning regret following surgical procedures which could arise due to a subsequent change of mind, dissatisfaction over post-surgical results or surgical complications, etc. The physical, psychological and social implications of such a situation will require multidisciplinary intervention to mitigate distress.
- Undergoing GAS can incur great financial costs and it is important that financial counselling for all patients contemplating GAS be provided.

As management of adolescents with GD and assessment of readiness for medical transitioning may span over years, handover of care to adult medical and/or surgical teams should be planned in advance, discussed with the patient and their family, and cover all the aspects of multi-disciplinary care.

IX. ACKNOWLEDGEMENTS

The following are the members of the Workgroup to develop Gender Dysphoria Treatment Guidelines for Adolescents. In the writing of these guidelines, the views of the Academy of Medicine, Singapore, have been sought and considered.

Members			Designation
1	Chairperson/ Subgroup Lead	Dr Cheryl Loh	Specialist, Garden Grove Clinic, Mount Alvernia Medical Centre
2	Deputy Chair	Adj A/Prof Ong Say How	Chief & Senior Consultant, Department of Developmental Psychiatry, IMH
3	Member	Dr Ganesh Kudva	Consultant, Department of Psychological Medicine, NUH
4	Member	Dr Chee Tji Tjian	Consultant, Department of Psychological Medicine, NUH
5	Member/ Subgroup Lead	Dr Timothy Quek	Head & Senior Consultant, Department of Endocrinology, TTSH
6	Member	Adj A/Prof Chan Yoke Hwee	Chairman, Medical Board, KKH
7	Member	Adj A/Prof Oh Jean Yin	Head, Department of Paediatrics & Senior Consultant, Adolescent Medicine Service, KKH
8	Member	Dr Andrew Sng	Consultant, Division of Paediatric Endocrinology, NUH
9	Member	Dr Sadhana Nadarajah	Senior Consultant, Department of Reproductive Medicine, KKH
10	Member/ Subgroup Lead	Clin A/Prof Chew Khong Yik	Senior Consultant, Department of Plastic, Reconstructive & Aesthetic Surgery, SGH
11	Member	Dr Yong Tze Tien	Head & Senior Consultant, Department of Obstetrics & Gynaecology, SGH
12	Member	A/Prof Ng Lay Guat	Senior Consultant, Department of Urology, SGH
13	Member	Dr Nau'shil Kaur Randhawa	Associate Consultant, Department of Obstetrics and Gynaecology, NUH
14	Member	Dr Melissa Tay Hui Wen	Consultant, Department of Urology, NUH
15	Lead Secretariat/	Dr Goh Tze Jui	Principal Clinical Psychologist, IMH

Members			Designation
	Subgroup Lead		
16	Member	Mrs Tan Chen Kee	Deputy Director-General of Education (Schools) & Director of Schools, MOE
17	Member	Ms Doreen Loh	Senior MSW, IMH
18	Member	Ms Christine Chua	Senior MSW, KKH
19	Member	Ms Chua Wan Zhi	Senior MSW, NUH
20	Member	Ms Carmen Chew	Clinical Psychologist, IMH

X. REFERENCES

Achille, C., Taggart, T., Eaton, N. R., Osipoff, J., Tafuri, K., Lane, A., & Wilson, T. A. (2020). Longitudinal impact of gender-affirming endocrine intervention on the mental health and well-being of transgender youths: Preliminary results. *International Journal of Pediatric Endocrinology*, *2020*(1), 8. https://doi.org/10.1186/s13633-020-00078-2

American Psychological Association. (2015). Guidelines for psychological practice with transgender and gender nonconforming people. *American Psychologist*, *70*(9), 832–864. https://doi.org/10.1037/a0039906

Bariola, E., Lyons, A., Leonard, W., Pitts, M., Badcock, P., & Couch, M. (2015). Demographic and Psychosocial Factors Associated with Psychological Distress and Resilience Among Transgender Individuals. *American Journal of Public Health*, *105*(10), 2108–2116. https://doi.org/10.2105/AJPH.2015.302763

Barrow, K., & Apostle, D. (2018). Addressing mental health conditions often experienced by transgender and gender expansive children. In C. Keo-Meier & D. Ehrensaft (Eds.), *The gender affirmative model: An interdisciplinary approach to supporting transgender and gender expansive children.* (pp. 71–84). American Psychological Association. https://doi.org/10.1037/0000095-005

Bower, H. (2001). The Gender Identity Disorder in the DSM-IV Classification: A Critical Evaluation. *Australian & New Zealand Journal of Psychiatry*, *35*(1), 1–8. https://doi.org/10.1046/j.1440-1614.2001.00859.x

Carmichael, P., Butler, G., Masic, U., Cole, T. J., De Stavola, B. L., Davidson, S., Skageberg, E. M., Khadr, S., & Viner, R. M. (2021). Short-term outcomes of pubertal suppression in a selected cohort of 12 to 15 year old young people with persistent gender dysphoria in the UK. *PLOS ONE*, *16*(2), e0243894. https://doi.org/10.1371/journal.pone.0243894

Carroll, R. A. (2007). Gender dysphoria and transgender experiences. In *Principles and practice of sex therapy, 4th ed.* (pp. 477–508). The Guilford Press.

Claahsen-van der Grinten, H., Verhaak, C., Steensma, T., Middelberg, T., Roeffen, J., & Klink, D. (2021). Gender incongruence and gender dysphoria in childhood and adolescence—Current insights in diagnostics, management, and follow-up. *European Journal of Pediatrics*, *180*(5), 1349–1357. https://doi.org/10.1007/s00431-020-03906-y

Clayton, A. (2023). Gender-Affirming Treatment of Gender Dysphoria in Youth: A Perfect Storm Environment for the Placebo Effect—The Implications for Research and Clinical Practice. *Archives of Sexual Behavior*, *52*(2), 483–494. https://doi.org/10.1007/s10508-022-02472-8

Cohen-Kettenis, P. T., Schagen, S. E. E., Steensma, T. D., De Vries, A. L. C., & Delemarre-van De Waal, H. A. (2011). Puberty Suppression in a Gender-Dysphoric Adolescent: A 22-Year Follow-Up. *Archives of Sexual Behavior*, *40*(4), 843–847. https://doi.org/10.1007/s10508-011-9758-9

Cohen-Kettenis, P. T., Steensma, T. D., & De Vries, A. L. C. (2011). Treatment of Adolescents with Gender Dysphoria in the Netherlands. *Child and Adolescent Psychiatric Clinics of North America*, *20*(4), 689–700. https://doi.org/10.1016/j.chc.2011.08.001

Cole, C. M., O'Boyle, M., Emory, L. E., & Meyer, W. J. (1997). Comorbidity of gender dysphoria and other major psychiatric diagnoses. *Archives of Sexual Behavior*, *26*(1), 13–26. https://doi.org/10.1023/a:1024517302481

Coleman, E., Radix, A. E., Bouman, W. P., Brown, G. R., De Vries, A. L. C., Deutsch, M. B., Ettner, R., Fraser, L., Goodman, M., Green, J., Hancock, A. B., Johnson, T. W., Karasic, D. H., Knudson, G. A., Leibowitz, S. F., Meyer-Bahlburg, H. F. L., Monstrey, S. J., Motmans, J., Nahata, L., … Arcelus, J. (2022). Standards of Care for the Health of Transgender and Gender Diverse People, Version 8. *International Journal of Transgender Health*, *23*(sup1), S1–S259. https://doi.org/10.1080/26895269.2022.2100644

Coolhart, D., Baker, A., Farmer, S., Malaney, M., & Shipman, D. (2013). Therapy with Transsexual Youth and Their Families: A Clinical Tool for Assessing Youth's Readiness for Gender Transition. *Journal of Marital and Family Therapy*, *39*(2), 223–243. https://doi.org/10.1111/j.1752-0606.2011.00283.x

Costa, R., Carmichael, P., & Colizzi, M. (2016). To treat or not to treat: Puberty suppression in childhood-onset gender dysphoria. *Nature Reviews Urology*, *13*(8), 456–462. https://doi.org/10.1038/nrurol.2016.128

Costa, R., Dunsford, M., Skagerberg, E., Holt, V., Carmichael, P., & Colizzi, M. (2015). Psychological Support, Puberty Suppression, and Psychosocial Functioning in Adolescents with Gender Dysphoria. *The Journal of Sexual Medicine*, *12*(11), 2206–2214. https://doi.org/10.1111/jsm.13034

Craig, S. L., & Austin, A. (2016). The AFFIRM open pilot feasibility study: A brief affirmative cognitive behavioral coping skills group intervention for sexual and gender minority youth. *Children and Youth Services Review*, *64*, 136–144. https://doi.org/10.1016/j.childyouth.2016.02.022

De Vries, A. L. C., & Cohen-Kettenis, P. T. (2012). Clinical Management of Gender Dysphoria in Children and Adolescents: The Dutch Approach. *Journal of Homosexuality*, *59*(3), 301–320. https://doi.org/10.1080/00918369.2012.653300

De Vries, A. L. C., McGuire, J. K., Steensma, T. D., Wagenaar, E. C. F., Doreleijers, T. A. H., & Cohen-Kettenis, P. T. (2014). Young Adult Psychological Outcome After Puberty Suppression and Gender Reassignment. *Pediatrics*, *134*(4), 696–704. https://doi.org/10.1542/peds.2013-2958

De Vries, A. L. C., Steensma, T. D., Cohen-Kettenis, P. T., VanderLaan, D. P., & Zucker, K. J. (2016). Poor peer relations predict parent- and self-reported behavioral and emotional problems of adolescents with gender dysphoria: A cross-national, cross-clinic comparative analysis. *European Child & Adolescent Psychiatry*, *25*(6), 579–588. https://doi.org/10.1007/s00787-015-0764-7

de Vries, A. L. C., Steensma, T. D., Doreleijers, T. A. H., & Cohen-Kettenis, P. T. (2011). Puberty suppression in adolescents with gender identity disorder: A prospective follow-up study. *The Journal of Sexual Medicine*, *8*(8), 2276–2283. https://doi.org/10.1111/j.1743-6109.2010.01943.x

Deogracias, J. J., Johnson, L. L., Meyer-Bahlburg, H. F. L., Kessler, S. J., Schober, J. M., & Zucker, K. J. (2007). The Gender Identity/Gender Dysphoria Questionnaire for Adolescents and Adults. *Journal of Sex Research*, *44*(4), 370–379. https://doi.org/10.1080/00224490701586730

Dhejne, C., Lichtenstein, P., Boman, M., Johansson, A. L. V., Långström, N., & Landén, M. (2011). Long-Term Follow-Up of Transsexual Persons Undergoing Sex Reassignment Surgery: Cohort Study in Sweden. *PLoS ONE*, *6*(2), e16885. https://doi.org/10.1371/journal.pone.0016885

Ehrensaft, D. (2018). Exploring gender expansive expressions versus asserting a gender identity. In C. Keo-Meier & D. Ehrensaft (Eds.), *The gender affirmative model: An interdisciplinary approach to supporting transgender and gender expansive children.* (pp. 37–53). American Psychological Association. https://doi.org/10.1037/0000095-003

Hembree, W. C., Cohen-Kettenis, P. T., Gooren, L., Hannema, S. E., Meyer, W. J., Murad, M. H., Rosenthal, S. M., Safer, J. D., Tangpricha, V., & T'Sjoen, G. G. (2017). Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society* Clinical Practice Guideline. *The Journal of Clinical Endocrinology & Metabolism*, *102*(11), 3869–3903. https://doi.org/10.1210/jc.2017-01658

Kaltiala, R., Heino, E., Työläjärvi, M., & Suomalainen, L. (2020). Adolescent development and psychosocial functioning after starting cross-sex hormones for gender dysphoria. *Nordic Journal of Psychiatry*, *74*(3), 213–219. https://doi.org/10.1080/08039488.2019.1691260

Khatchadourian, K., Amed, S., & Metzger, D. L. (2014). Clinical Management of Youth with Gender Dysphoria in Vancouver. *The Journal of Pediatrics*, *164*(4), 906–911. https://doi.org/10.1016/j.jpeds.2013.10.068

Kreukels, B. P. C., & Cohen-Kettenis, P. T. (2011). Puberty suppression in gender identity disorder: The Amsterdam experience. *Nature Reviews Endocrinology*, *7*(8), 466–472. https://doi.org/10.1038/nrendo.2011.78

Levine, S. B. (2018). Ethical Concerns About Emerging Treatment Paradigms for Gender Dysphoria. *Journal of Sex & Marital Therapy*, *44*(1), 29–44. https://doi.org/10.1080/0092623X.2017.1309482

Lobato, M. I., Koff, W. J., Crestana, T., Chaves, C., Salvador, J., Petry, A. R., Silveira, E., Henriques, A. A., Cervo, F., Böhme, E. S., & Massuda, R. (2009). Using the Defensive Style Questionnaire to evaluate the impact of sex reassignment surgery on defensive mechanisms in transsexual patients. *Revista Brasileira de Psiquiatria*, *31*(4), 303–306. https://doi.org/10.1590/S1516-44462009005000007

Mahfouda, S., Moore, J. K., Siafarikas, A., Zepf, F. D., & Lin, A. (2017). Puberty suppression in transgender children and adolescents. *The Lancet Diabetes & Endocrinology*, *5*(10), 816–826. https://doi.org/10.1016/S2213-8587(17)30099-2

Malpas, J., Glaeser, E., & Giammattei, S. V. (2018). Building resilience in transgender and gender expansive children, families, and communities: A multidimensional family approach. In C. Keo-Meier & D. Ehrensaft (Eds.), *The gender affirmative model: An interdisciplinary approach to supporting transgender and gender expansive children.* (pp. 141–156). American Psychological Association. https://doi.org/10.1037/0000095-009

McGuire, J. K., Berg, D., Catalpa, J. M., Morrow, Q. J., Fish, J. N., Nic Rider, G., Steensma, T., Cohen-Kettenis, P. T., & Spencer, K. (2020). Utrecht Gender Dysphoria Scale - Gender Spectrum (UGDS-GS): Construct validity among transgender, nonbinary, and LGBQ samples. *International Journal of Transgender Health*, *21*(2), 194–208. https://doi.org/10.1080/26895269.2020.1723460

Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, *129*(5), 674–697. https://doi.org/10.1037/0033-2909.129.5.674

National Health Service England (2024). Clinical Policy: Puberty suppressing hormones (PSH) for children and young people who have gender incongruence. [1927].

Puckett, J. A., Matsuno, E., Dyar, C., Mustanski, B., & Newcomb, M. E. (2019). Mental health and resilience in transgender individuals: What type of support makes a difference? *Journal of Family Psychology*, *33*(8), 954–964. https://doi.org/10.1037/fam0000561

Rew, L., Young, C. C., Monge, M., & Bogucka, R. (2021). Review: Puberty blockers for transgender and gender diverse youth—a critical review of the literature. *Child and Adolescent Mental Health*, *26*(1), 3–14. https://doi.org/10.1111/camh.12437

Ryan, C., Russell, S. T., Huebner, D., Diaz, R., & Sanchez, J. (2010). Family Acceptance in Adolescence and the Health of LGBT Young Adults: Family Acceptance in Adolescence and the Health of LGBT Young Adults. *Journal of Child and Adolescent Psychiatric Nursing*, *23*(4), 205–213. https://doi.org/10.1111/j.1744-6171.2010.00246.x

Schagen, S. E. E., Cohen-Kettenis, P. T., Delemarre-van De Waal, H. A., & Hannema, S. E. (2016). Efficacy and Safety of Gonadotropin-Releasing Hormone Agonist Treatment to Suppress Puberty in Gender Dysphoric Adolescents. *The Journal of Sexual Medicine*, *13*(7), 1125–1132. https://doi.org/10.1016/j.jsxm.2016.05.004

Smith, Y. L. S., Van Goozen, S. H. M., Kuiper, A. J., & Cohen-Kettenis, P. T. (2005). Transsexual subtypes: Clinical and theoretical significance. *Psychiatry Research*, *137*(3), 151–160. https://doi.org/10.1016/j.psychres.2005.01.008

Spivey, L. A., & Edwards-Leeper, L. (2019). Future Directions in Affirmative Psychological Interventions with Transgender Children and Adolescents. *Journal of Clinical Child & Adolescent Psychology*, *48*(2), 343–356. https://doi.org/10.1080/15374416.2018.1534207

Steensma, T. D., McGuire, J. K., Kreukels, B. P. C., Beekman, A. J., & Cohen-Kettenis, P. T. (2013). Factors Associated with Desistence and Persistence of Childhood Gender Dysphoria: A Quantitative Follow-Up Study. *Journal of the American Academy of Child & Adolescent Psychiatry*, *52*(6), 582–590. https://doi.org/10.1016/j.jaac.2013.03.016

Tordoff, D. M., Wanta, J. W., Collin, A., Stepney, C., Inwards-Breland, D. J., & Ahrens, K. (2022). Mental Health Outcomes in Transgender and Nonbinary Youths Receiving Gender-Affirming Care. *JAMA Network Open*, *5*(2), e220978. https://doi.org/10.1001/jamanetworkopen.2022.0978

Turban, J. L., King, D., Carswell, J. M., & Keuroghlian, A. S. (2020). Pubertal Suppression for Transgender Youth and Risk of Suicidal Ideation. *Pediatrics*, *145*(2), e20191725. https://doi.org/10.1542/peds.2019-1725

Wallien MSC, Cohen-Kettenis PT. (2008). Psychosexual Outcome of Gender-Dysphoric Children. *Journal of American Academy of Child & Adolescent Psychiatry,* 47(12): 1413-1423. https://doi.org/10.1097/CHI.0b013e31818956b9

Weinhardt, L. S., Stevens, P., Xie, H., Wesp, L. M., John, S. A., Apchemengich, I., Kioko, D., Chavez-Korell, S., Cochran, K. M., Watjen, J. M., & Lambrou, N. H. (2017). Transgender and Gender Nonconforming Youths' Public Facilities Use and Psychological Well-Being: A Mixed-Method Study. *Transgender Health*, *2*(1), 140–150. https://doi.org/10.1089/trgh.2017.0020

Whittle, S., Turner, L., Al-Alami, M., Contributors, Rundall, E., & Thom, B. (2007). *Engendered Penalties: Transgender and Transsexual People's Experiences of Inequality and Discrimination*.

Wiepjes, C. M., Nota, N. M., de Blok, C. J. M., Klaver, M., de Vries, A. L. C., Wensing-Kruger, S. A., de Jongh, R. T., Bouman, M.-B., Steensma, T. D., Cohen-Kettenis, P., Gooren, L. J. G., Kreukels, B. P. C., & den Heijer, M. (2018). The Amsterdam Cohort of Gender Dysphoria Study (1972-2015): Trends in Prevalence, Treatment, and Regrets. *The Journal of Sexual Medicine*, *15*(4), 582–590. https://doi.org/10.1016/j.jsxm.2018.01.016