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ORIGINAL PAPER

Report of the American Psychiatric Association Task Force on Treatment of Gender Identity Disorder

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Abstract Both the diagnosis and treatment of Gender Identity Disorder (GID) are controversial. Although linked, they are separate issues and the DSM does not evaluate treatments. The Board of Trustees (BOT) of the American Psychiatric Association (APA), therefore, formed a Task Force charged to perform a critical review of the literature on the treatment of GID at different ages, to assess the quality of evidence pertaining to treatment, and to prepare a report that included an opinion as to whether or not sufficient credible literature exists for development of treatment recommendations by the APA. The literature on treatment of gender dysphoria in individuals with disorders of sex development was also assessed. The completed report was accepted by the BOT on September 11, 2011. The quality of evidence pertaining to most aspects of treatment in all subgroups was determined to be low; however, areas of broad clinical consensus were identified and were deemed sufficient to support recommendations for treatment in all subgroups. With subjective improvement as the primary outcome measure, current evidence was judged sufficient to support recommendations for adults in the form of an evidence-based APA Practice Guideline with gaps in the empirical data supplemented by clinical consensus. The report recommends that the APA take steps beyond drafting treatment recommendations. These include issuing position statements to clarify the APA's position regarding the medical necessity of treatments for GID, the ethical bounds of treatments of gender variant minors, and the rights of persons of any age who are gender variant, transgender or transsexual.

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Preface

After the announcement of the DSM-5 work group membership in May 2008, the American Psychiatric Association (APA) received many inquiries regarding the workgroup named to address the entities included under Gender Identity Disorder (GID) in versions III through IV-TR of the DSM. These inquiries most often dealt with treatment controversies regarding GID, especially in children, rather than issues related specifically to the DSM text and diagnostic criteria. In addition, the APA Committee on Gay, Lesbian, and Bisexual Issues had previously raised concerns about the lack of evidence-based guidelines for GID, and questions about whether such guidelines could and should be developed.

While the diagnosis and treatment of mental disorders are inextricably linked, they are separate issues and the evaluation of treatments is not addressed by the DSM work groups. The APA Board of Trustees, therefore, formed a task force on the treatment of GID under the oversight of the Council on Research. Members of the GID Task Force were appointed by the APA President, Dr. Nada Stotland, and charged by the Board of Trustees "to perform a critical review of the literature on the treatment of GID at different ages and to present a report to the Board of Trustees." The report "would include an opinion as to whether or not there is sufficient credible literature to take the next step and develop treatment recommendations."

Members of the Task Force include APA members William, Byne M.D., Ph.D. (Chair); A. Evan Eyler, M.D., MPH; Edgardo J. Menvielle, M.D., M.S.H.S.; Richard R. Pleak, M.D., and D. Andrew Tompkins, M.D. (Early Career Psychiatrist). Non APA members named as consultants include Susan J. Bradley, M.D., Eli Coleman, Ph.D., Richard Green, M.D., JD, and Heino F. L. Meyer-Bahlburg, Dr. rer. nat. The work of the Task Force was conducted by email correspondence, conference calls, and one group meeting of the APA members at the APA Annual Meeting, May 2010. Members and consultants contributed equally to the project.

The Task Force commenced its work as the DSM-5 workgroups were deliberating. Questions, therefore, arose regarding the impact of potential differences between the forthcoming DSM-5 and previous iterations of the DSM on the utility of the Task Force Report. Of particular concern was the question of whether or not the diagnostic entity designated as GID would be carried forward into the DSM-5. The Task Force concluded that most of the issues pertaining to gender variance (GV) that lead individuals (or their parents in the case of minors) to seek mental health services would remain the same regardless of any changes in DSM nomenclature or diagnostic criteria. Any such changes to the DSM should, therefore, have minimal impact on the utility of the Task Force Report. Since the DSM-5 would be published only after the Task Force completes its work, the evidence base available for consideration by the Task Force was necessarily based on prior diagnostic formulations. The Task Force chose to conduct its deliberations primarily in terms of the DSM-IV-TR formulations with reference to other formulations as necessary.

Although the charge to the Task Force was to comment on the feasibility of making treatment *recommendations*, questions arose in the initial conference calls regarding the nature of the evidence base required by the APA for development of recommendations in the specific form of *APA Practice Guidelines*. *APA Practice Guidelines* are defined as systematically developed documents in a standardized format that present patient care strategies to assist psychiatrists in clinical decision making. The APA's Steering Committee on Practice Guidelines (SCPG) both selects topics for guideline development and oversees their development. According to the APA's website (http://www.psychiatryonline.com/content.aspx?aID=58560) at the time the Task Force commenced it work in 2008 and concluded it in May 2011, two of the criteria for topic selection by the SCPG are quality of the relevant data base and prevalence of the disorder. The randomized double blind control trial is the study design that affords the highest quality evidence regarding the comparative efficacy of various treatment modalities; however, no such trials have been conducted to address any aspect of the treatment of GID. Given the very nature of GID, such trials, or even unblinded trials with random assignment to treatment groups, are not likely to be forthcoming due to a lack of feasibility and/or ethical concerns. In addition to the lack of evidence of the highest quality relevant to the treatment of GID, GID is widely believed to be a rare phenomenon (Zucker & Lawrence, 2009)[1] and likely to fall short of the SCPG's criterion for prevalence. The Task Force, therefore, decided to consider whether available evidence, together with clinical consensus, constitutes a sufficient basis to support the development the treatment *recommendations*, broadly defined, in addition to assessing the quality of evidence relevant to the potential development of APA Practice Guidelines, as defined above.

In order to address its charge, the Task Force divided itself into subgroups to address GID and related issues in four populations. Three of these populations are defined by age: children, adolescents, and adults. The fourth population comprises individuals with the desire to change their assigned gender who have a somatic disorder of sex development (DSD). The makeup of the subgroups was as follows: child (Richard R. Pleak and Edgardo J. Menvielle); adolescent (Susan Bradley and Richard Green); adult (A.

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[1] Epidemiological studies are lacking so that no strong conclusions about the prevalence of GID can be drawn (Zucker & Lawrence, 2009). The DSM-IV estimates that roughly 1:30,000 natal males and 1:100,000 natal females ultimately seek SRS. These are underestimates for the prevalence of GID since not all adults who meet criteria for GID seek SRS, and GID diagnosed in childhood usually does not persist into adolescence and adulthood.

Evan Eyler, Eli Coleman, and D. Andrew Tompkins), and DSD (Heino F. L. Meyer-Bahlburg and William Byne).

Each subgroup conducted database searches and produced a document addressing the Task Force's charge pertaining to its assigned subpopulation. These documents were circulated to all members of the Task Force, discussed during conference calls, and revised until approved by group consensus. Because the consensus process involves compromise, all members of the Task Force do not necessarily agree with all views expressed within the report. The Task Force could not reach a consensus regarding the question of whether or not persistent cross-gender identification sufficient to motivate an individual to seek sex reassignment, per se, is a form of psychopathology in the absence of clinically significant distress or impairment due to a self-perceived discrepancy between anatomical signifiers of sex and gender identity. Since this question falls within the purview of the DSM Committee and is not central to the Task Force's charge of evaluating treatment, text suggesting a stand on this issue was deleted from the report. Similarly, a consensus could not be reached regarding the legitimacy of particular goals of therapy with children diagnosed with GID (e.g., prevention of transgenderism or homosexuality) even when consistent with the religious beliefs or sociocultural values of the parents or primary caregivers.

Executive Summary and Recommendations

This Task Force Report assesses the current status of evidence bearing on treatment, by mental health professionals, of the entities included under GID in the DSM (versions III through IV-TR) as well as gender dysphoria in individuals with somatic DSDs, designated as GID Not Otherwise Specified (GIDNOS) in DSM-IV-TR. The primary aim of the report is to answer the question posed by the APA Board of Trustees as to whether or not there is sufficient credible literature to support development by the APA of treatment recommendations for GID. Separate sections of the report are addressed to GID in children, adolescents, and adults, as well as to GIDNOS in individuals with somatic DSDs. The Executive Summary provides a synopsis of each of those sections (readers are referred to each primary section for full citations), together with an opinion from the Task Force regarding support for treatment recommendations in the literature. The Task Force concludes that the current credible literature is adequate for the development of consensus based treatment recommendations for all subgroups reviewed. Moreover, it is concluded that, for adults, with subjective improvement as the primary outcome measure, the existing evidence base combined with clinical consensus is sufficient for developing recommendations in the form of an APA Practice Guideline.

The case is also made that treatment recommendations from the APA are needed, even in areas where criteria are not met for selection by the SCPG for APA Practice Guideline development, and that the APA should proceed with their preparation. The Task Force recommends that additional steps be taken by the APA pertaining to issues relating to GV (Appendix 1) and to DSDs, whether or not GV is an issue (Appendix 2). These include issuing a position statement to clarify the APA's position regarding the medical necessity of treatments for GID, the ethical bounds of treatments for minors with GID, and the rights of persons of any age who are gender variant or transgender.

Evaluation of Levels of Evidence

Where possible, the Task Force Report comments on the level of evidence from research studies bearing on treatment issues. Unless otherwise specified, the levels of evidence refer to the APA evidence coding system which was in use at the time the Task Force was commissioned (http://www.psychiatryonline.com/content.aspx?aID=58560) and is specified below:

[A] *Randomized, double-blind clinical trial.* A study of an intervention in which subjects are prospectively followed over time; there are treatment and control groups; subjects are randomly assigned to the two groups; and both the subjects and the investigators are "blind" to the assignments.

[A-] *Randomized clinical trial.* Same as above but not double blind.

[B] *Clinical trial.* A prospective study in which an intervention is made and the results of that intervention are tracked longitudinally. Does not meet standards for a randomized clinical trial.

[C] *Cohort or longitudinal study.* A study in which subjects are prospectively followed over time without any specific intervention.

[D] *Control study.* A study in which a group of patients and a group of control subjects are identified in the present and information about them is pursued retrospectively or backward in time.

[E] *Review with secondary data analysis.* A structured analytic review of existing data (e.g., a meta-analysis or a decision analysis).

[F] *Review.* A qualitative review and discussion of previously published literature without a quantitative synthesis of the data.

[G] *Other.* Opinion-like essays, case reports, and other reports not categorized above.

Terminology and Abbreviations

The diagnostic category, GID, was introduced by DSM-III and included the diagnoses of GID of Childhood and Transsexualism. In DSM-III-R, GID of Childhood and Transsexualism were retained; GID of Adolescence and Adulthood, Nontranssexual Type (GIDAANT) was added; and "disorders in gender identity" not otherwise classified were designated as GIDNOS. Note that under GID of Childhood, physical disorders of the sex organs, when present, were noted under Axis III. This stipulation was not made explicit for transsexualism and GIDAANT, but intersex is not noted under GIDNOS in DSM-III-R. Thus, if a person with a DSD met GID criteria, s/he would be given the GID diagnosis, with the intersex syndrome listed on Axis III. In DSM-IV and IV-TR, GID of Childhood and GIDNOS (in addition to some other conditions) were retained; however, the designation GID of Adolescence and Adulthood subsumed both Transsexualism and the Nontranssexual Types.

DSM-IV-TR excludes individuals with a DSD from the diagnosis of GID. Individuals with gender dysphoria and a DSD are placed under the category GIDNOS rather than under the more specifically defined term GID. GIDNOS is commonly used also for individuals without a DSD who meet some but not all required GID criteria (often referred to as "subthreshold cases"). Thus, the DSM-IV-TR applies the term GIDNOS (apart from other examples) to three groups of individuals with gender dysphoria: (1) those without a DSD who do not meet full criteria for GID, (2) those who would meet full criteria for GID if not for the DSD exclusion, and (3) those with a DSD who do not meet the full inclusion criteria.

The criteria for the GID diagnoses, as well as the nomenclature itself, are under revision at the time of this writing. Documentation regarding the development of the DSM-5 and potential changes in nomenclature and diagnostic criteria are available through the DSM-5 website (http://www.dsm5.org) and are not addressed here.

In the present report, the abbreviations GID and GIDNOS, are used to refer to Gender Identity Disorders as defined in the DSM-IV-TR. The entities designated as GIDs by the DSM-IV-TR include only a subset of individuals for whom clinical concerns related to GV may be raised (whether by the individual or the individual's primary caregivers, educators, or healthcare providers). GV is used to refer to any degree of cross-gender identification or nonconformity in gender role behavior regardless of whether or not criteria are met for either GID or GIDNOS. The terms transsexual and transsexualism are used to refer to adults who meet diagnostic criteria for GID and have employed hormonal and/or surgical treatments in the process of transitioning gender or who plan to do so. Transgender denotes individuals with cross-gender identification whether or not hormonal or surgical treatments have been, or are planned to be, employed in transitioning gender. Natal sex is used to refer to the sex at birth of individuals who subsequently desire or undergo any degree of sex reassignment or gender transition, provided that they do not have a DSD. DSD as employed here refers to congenital conditions (formerly referred to as intersex disorders, hermaphroditism, and pseudohermaphroditism) which entail atypical development of chromosomal, gonadal and/or genital sex.

Abbreviations

AACAP	American Academy of Child and Adolescent Psychiatry
APA	American Psychiatric Association
CAH	Congenital adrenal hyperplasia
DSD	Disorder of sex development
DSM	Diagnostic and Statistical Manual
FTM	Female to male
GID	Gender Identity Disorder
GIDAANT	Gender Identity Disorder of Adolescence and Adulthood, Nontranssexual Type
GIDNOS	Gender Identity Disorder, Not Otherwise Specified
GLBT	Gay, lesbian, bisexual transgender/transsexual
GnRH	Gonadotropin releasing hormone
GRADE	Grading of Recommendations, Assessment, Development, and Evaluation
GV	Gender variance
HBIDGA	Harry Benjamin International Gender Dysphoria Association
ICTLEP	International Conference on Transgender Law and Employment Policy, Inc
MTF	Male to female
WPATH	World Professional Association for Transgender Health (formerly the Harry Benjamin International Gender Dysphoria Association (HBIDGA)
RCT	Randomized controlled trial
SCPG	Steering Committee on Practice Guidelines
SOC	Standards of Care
SRS	Sex reassignment surgery

Synopses of Literature Reviews and Opinions with Respect to Recommendations

Children

Synopsis Children have limited capacity to participate in decision making regarding their own treatment, and no legal ability to provide informed consent. They must rely on caregivers to make treatment decisions on their behalf, including those that will influence the course of their lives in the long term. The optimal approach to treating pre-pubertal children with GV, including DSM-defined GID, is, therefore, more controversial than treating these phenomena in adults and adolescents. An additional obstacle to consensus regarding treatment of children is the lack of randomized controlled treatment outcome studies of children with GID or with any presentation of GV (Zucker, 2008b). In the absence of such studies, the highest level of evidence available for treatment recommendations for these children can best be characterized as expert opinion. Opinions vary widely among experts, and are influenced by theoretical orientation, as well as assumptions and beliefs (including religious) regarding the origins, meanings, and perceived fixity or malleability of gender identity. Primary caregivers may, therefore, seek out providers for their children who mirror their own world views, believing that goals consistent with their views are in the best interest of their children.

The outcome of childhood GID without treatment is that only a minority will identify as transsexual or transgender in adulthood (a phenomenon termed persistence), while the majority will become comfortable with their natal gender over time (a phenomenon termed desistence) (Davenport, 1986; Green, 1987; Wallien & Cohen-Kettenis, 2008; Zuger, 1978). GID that persists into adolescence is more likely to persist into adulthood (Zucker, 2008b). Compared to the general population, the rate of homosexual orientation is increased in adulthood whether or not GID was treated (Green, 1987; Zucker, 2008b). It is currently not possible to differentiate between preadolescent children in whom GID will persist and those in whom it will not. To date, no long-term follow-up data have demonstrated that any modality of treatment has a statistically significant effect on later gender identity.

The overarching goal of psychotherapeutic treatment for childhood GID is to optimize the psychological adjustment and well-being of the child. What is viewed as essential for promoting the well-being of the child, however, differs among clinicians, as does the selection and prioritization of goals of treatment. In particular, opinions differ regarding the questions of whether or not minimization of gender atypical behaviors and prevention of adult transsexualism are acceptable goals of therapy.

Several approaches to working with children with GID were identified in the professional literature. The first of these focuses on working with the child and caregivers to lessen gender dysphoria and to decrease cross-gender behaviors and identification. The assumption is that this approach decreases the likelihood that GID will persist into adolescence and culminate in adult transsexualism (Zucker, 2008a). For various reasons (e.g., social stigma, likelihood of hormonal and surgical procedures with their associated risks and costs), persistence is considered to be an undesirable outcome by some (Green, 1987; Rekers, 1982; Zucker, 2008a) but not all clinicians who work in this area of practice (Brill & Pepper, 2008; Ehrensaft, 2007; Spack, 2005).

A second approach makes no direct effort to lessen gender dysphoria or gender atypical behaviors. This approach is premised on the evidence that GID diagnosed in childhood usually does not persist into adolescence and beyond (Green, 1987; Wallien & Cohen-Kettenis, 2008), and on the lack of reliable markers to predict in whom it will or will not persist. A variation of this second approach is to remain neutral with respect to gender identity and to have no therapeutic target with respect to gender identity outcome. The goal is to allow the developmental trajectory of gender identity to unfold naturally without pursuing or encouraging a specific outcome (Ehrensaft, 2011; Hill & Menvielle, 2010; Hill, Menvielle, Sica, & Johnson, 2010; Pleak, 1999). Such an approach entails combined child, parent, and community-based interventions to support the child in navigating the potential social risks. Support for this approach is centered on the assumption that self-esteem may be damaged by conveying to the child that his or her likes and dislikes, behaviors, and mannerisms are somehow intrinsically wrong (Richardson, 1999). A counter argument proposes that self-esteem can be best served by improved social integration, including positive relationships with same-sex peers (Meyer-Bahlburg, 2002b). Alternatively, proponents of this second approach suggest that the child's self-recognition of a gender variant and stigmatized status may be actively encouraged, with the goal of mastery (e.g., developing cognitive, emotional and behavioral coping tools for living as a gender variant person) (Edwards-Leeper & Spack, 2011; Ehrensaft, 2011). A third approach may entail affirmation of the child's cross-gender identification by mental health professionals and family members. Thus, the child is supported in transitioning to a cross-gendered role, with the option of endocrine treatment to suspend puberty in order to suppress the development of unwanted secondary sex characteristics if the cross-gendered identification persists into puberty (Ehrensaft, 2011). The rationale for supporting transition before puberty is the belief that a transgender outcome is to be expected in some children, and that these children can be identified so that primary caregivers and clinicians may opt to support early social transition. A supporting argument is that children who transition this way can revert to their originally assigned gender if necessary since the transition is done solely at a social level and without medical intervention (Brill & Pepper, 2008). The primary counterargument to this approach is based on the evidence that GID in children usually does not persist into adolescence and adulthood. Thus, supporting gender transition in childhood might increase the likelihood of persistence (Pleak, 2010). Furthermore, the peer-reviewed literature does not support the view that desisters and persisters can currently be reliably distinguished as children (Cohen-Kettenis & Pfäfflin, 2010; Wallien & Cohen-Kettenis, 2008; Zucker, 2007; Zucker & Cohen-Kettenis, 2008). Moreover, after transitioning gender in childhood, reverting to the natal gender may entail complications (Steensma, Biemond, Boer, & Cohen-Kettenis, 2011).

Primary modes of therapy utilized in working with children with GID include individual insight-oriented psychoanalytic or psychodynamic psychotherapy (Coates, Friedman, & Wolfe, 1991); protocol-driven psychotherapy such as behavior modification (Rekers, 1979); parent and peer-relations focused therapy(Meyer-Bahlburg, 2002b), and parent and child therapeutic groups (Ehrensaft, 2011; Menvielle & Tuerk, 2002; Pleak, 1999). Additional interventions include support groups for primary caregivers, community education through websites and conferences, school-based curricula, and specialized youth summer camps. The primary focus of intervention is sometimes the primary caregivers. Depending on the treatment approach chosen, work may include parenting support and psychoeducation, guidance in reinforcing behavior modification, and instruction in techniques for building self-acceptance and resilience in the child. Some interventions are multi-faceted and involve the school and community, as well as the child and family. These include diversity education and steps to prevent bullying.

The Task Force identified the following as the major tasks for mental health professionals working with children referred for gender concerns: (1) to accurately evaluate the gender concerns that precipitated the referral; (2) to accurately diagnose any gender identity related disorder in the child according to the criteria of the most current DSM; (3) to accurately diagnose any coexisting psychiatric conditions in the child, as well as problems in the parent–child relationship, and to recommend their appropriate treatment; (4) to provide psychoeducation and counseling to the caregivers about the range of treatment options and their implications; (5) to provide psychoeducation and counseling to the child appropriate to his or her level of cognitive development; (6) when indicated, to engage in psychotherapy with the appropriate persons, such as the child and/or primary caregivers, or to make appropriate referrals for these services; (7) to educate family members and institutions (e.g., day care and preschools, kindergartens, schools, churches) about GV and GID; (8) to assess the safety of the family, school, and community environments in terms of bullying and stigmatization related to gender atypicality, and to address suitable protective measures.

With respect to comparing alternative approaches to accomplishing the above tasks, the Task Force found no randomized (APA level A) or adequately controlled nonrandomized longitudinal (APA level A-) studies, and very few follow-up studies without a control group either with (APA level B) or without (APA level C) an intervention. The majority of available evidence is derived from qualitative reviews (APA level F) and experimental systematic single case studies that do not fit into the APA evidence grading system.

Opinion Regarding Treatment Recommendations

Despite deficiencies in the evidence base and the lack of consensus regarding treatment goals, the present literature review suggests consensus on a number of points. Areas where existing literature supports development of consensus recommendations include, but are not limited to, the following: (1) assessment and accurate DSM diagnosis of the child referred for gender concerns, including the use of validated questionnaires and other validated assessment instruments to assess gender identity, gender role behavior, and gender dysphoria; (2) diagnosis of any coexisting psychiatric conditions in the child and seeing to their appropriate treatment or referral; (3) identification of mental health concerns in the caregivers and difficulties in their relationship with the child, ensuring that these are adequately addressed, (4) provision of adequate psychoeducation and counseling to caregivers to allow them to choose a course of action and to give fully informed consent to any treatment chosen. This entails disclosing the full range of treatment options available (including those that might conflict with the clinician's beliefs and values), the limitations of the evidence base that informs treatment decisions, the range of possible outcomes, and the currently incomplete knowledge regarding the influence of childhood treatment on outcome; (5) provision of age appropriate information to the child; (6) assessment of the safety of the family, school and community environments in terms bullying and stigmatization related to gender atypicality, and to address suitable protective measures.

Adolescents

Synopsis

For purposes of this Task Force report, adolescence is defined as the developmental period from 12 to 18 years of age. Adolescents with GID comprise two groups, those in whom GID began in childhood and has persisted, and those with the onset of GID in adolescence. Only two clinics (one in Canada and one in The Netherlands) have systematically gathered data on sufficient numbers of subjects to provide an empirical "experience base" on the main issues in adolescence. Both of these teams concur that management of those in whom GID has persisted from childhood is more straightforward than management of those in whom GID is of more recent onset. In particular, the latter group is more likely to manifest significant psychopathology in addition to GID.

This group should be screened carefully to detect the emergence of the desire for sex reassignment in the context of trauma as well as for any disorder such as schizophrenia, mania or psychotic depression that may produce gender confusion. When present, such psychopathology must be addressed and taken into account prior to assisting the adolescent's decision as to whether or not to pursue sex reassignment or actually assisting the adolescent with the gender transition. Both the Canadian and Dutch groups are guided by the World Professional Association for Transgender Health (WPATH) Standards of Care (SOC) which endorse a program of staged gender change in which fully reversible steps are taken first, followed in turn by partially reversible and irreversible steps.

With the beginning of puberty, development of the secondary sex characteristics of the natal gender often triggers or exacerbates the anatomic dysphoria of adolescents with GID (Cohen-Kettenis, Delemarre-van de Waal, & Gooren, 2008; Spack, 2005). Recently, the option has become available for pubertal patients with severe gender dysphoria and minimal, if any, additional psychopathology to have puberty suspended medically in order to prevent or to minimize development of unwanted secondary sex characteristics, some of which are not fully reversible with subsequent hormonal or surgical sex reassignment therapies (de Vries, Steensma, Doreleijers, & Cohen-Kettenis, 2010). A practice guideline developed by the Endocrine Society (Hembree et al., 2009) suggests that pubertal suspension can be done for a period of up to several years during which time the patient, with the clinicians, can decide whether it is preferable for the adolescent to revert to living in the birth sex or to continue gender transition with cross-sex hormone therapy. There are currently little data regarding the timing of cross-sex hormone treatment in adolescents and no studies comparing outcomes when such treatment is initiated in adolescence as opposed to adulthood, with or without prior suspension of puberty. We know, however, that many adult transsexuals express regret over the body changes that occurred during puberty, some of which are irreversible. In the absence of a DSD (addressed in a separate section), at present, sex reassignment surgery (SRS) is not performed prior to the age of 18 in the United States. It is noted, however, that one study on carefully selected individuals in the Netherlands suggests that, as assessed by satisfaction with surgery and lack of regrets, outcome was generally better in individuals who initiated sex reassignment as adolescents than as adults (Smith, van Goozen, & Cohen-Kettenis, 2001; Smith, van Goozen, Kuiper, & Cohen-Kettenis, 2005a). Even in these studies, however, SRS was not initiated prior to the age of 18.

The major tasks identified by the Task Force to be germane to provision of mental health services to adolescents with the desire to transition in gender, or who are in the process of transitioning, are (1) psychiatric and psychological assessment to both assure that any psychopathology is adequately diagnosed and addressed, and to determine whether the clinicians' approach will be neutral or supportive with respect to the desire to transition in gender; (2) provision of psychotherapy as indicated by the initial assessment and as indicated by changes over time. This includes providing psychological support during the real life experience and suspension of puberty and/or the administration of cross-sex hormones; (3) assessment of eligibility and readiness for each step of treatment.

Database searches failed to reveal any RCTs related to any of these issues. The quality of the evidence is primarily individual case reports (APA level G); follow-up studies with control groups of limited utility and without random assignment, or longitudinal follow-up studies after an intervention without control groups (APA level B); and reviews of the above (APA level F). Between 2001 and 2009, over 80 adolescents selected based on conservative criteria have been treated with pubertal suspension with overall positive results in the most detailed follow-up study published to date (APA evidence level B) (de Vries, Kreukels, Steensma, Doreleijers, & Cohen-Kettenis, 2011). In a consecutive series of 109 adolescents (55 females, 54 males) with GID, the Toronto group identified demographic variables correlated with clinical decisions to recommend, or not recommend, gonadal hormone blocking therapy (Zucker et al., 2011). Follow-up data, to date, however, are not adequate for statistical analyses of outcome variables.

Opinion Regarding Treatment Recommendations

Existing literature is insufficient to support development of an APA Practice Guideline for treatment of GID in adolescence but is sufficient for consensus recommendations in the following areas: (1) psychological and psychiatric assessment of adolescents presenting with a wish for sex reassignment, including assessment of co-occurring conditions and facilitation of appropriate management; (2) psychotherapy (including counseling and supportive therapy as indicated) with these adolescents, including enumeration of the issues that psychotherapy should address. These would include issues that arise with adolescents who are transitioning gender, including the real life experience; (3) assessment of indications and readiness for suspension of puberty and/or cross-sex hormones as well as provision of documentation to specialists in other disciplines involved in caring for the adolescent; (4) psychoeducation of family members and institutions regarding GV and GID; (5) assessment of the safety of the family/school/community environment in terms of gender-atypicality-related bullying and stigmatization, and to address suitable protective measures.

Adults

Synopsis

The adult section addresses individuals 18 years and older, and thus picks up where the adolescent section leaves off in considering individuals who seek mental health services for reasons related to GV, some of whom meet diagnostic criteria for GID. For some adults, GID/GV has clearly persisted from childhood and adolescence, but for others it has arisen (or at least come to clinical attention) for the first time in adulthood. Among natal males, there tend to be a number of differences between those with an early (childhood) as opposed to late (adulthood) onset. In particular, those with late onset are more likely to have had unremarkable histories of gender nonconformity as children, and are less likely to be primarily sexually attracted to individuals of their natal gender, at least prior to gender transition (Lawrence, 2010). Age of onset may have some, albeit limited, value in predicting satisfaction versus regret following SRS (Blanchard, Steiner, Clemmensen, & Dickey, 1989; De Cuypere et al., 2006; Lawrence, 2003; Muirhead-Allwood, Royle, & Young, 1999).

The WPATH SOC (Meyer et al., 2001) and the recent Endocrine Society Guideline (Hembree et al., 2009) endorse psychological evaluation and a staged transition in which fully reversible steps (e.g., presenting as the desired gender) precede partially reversible procedures (administration of gonadal hormones to bring about the desired secondary sex characteristics), which precede the irreversible procedures (e.g., gonadectomy, vaginoplasty in natal males, mastectomy and surgical construction of male-typical chest and phalloplasty in natal females).[2] Adults who have capacity to give informed consent may receive the gender transition treatments for which they satisfy the qualifying criteria of the providers. These criteria vary among providers and clinics. A recent review graded the quality of evidence relating particular components of the WPATH SOC to outcomes and

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[2] Since the completion of this report, version 7 of the WPATH SOC has been published and is available at www.wpath.org.

concluded that psychotherapy prior to initiating hormonal or surgical treatments, and staged transition (including a period of real life experience) were associated with good outcome (De Cuypere & Vercruysse, 2009). Most of the studies reviewed were case series and case reports or reviews (APA level D or lower), although some included sufficient longitudinal follow-up and standardization to meet APA level B or C.

Prior to adulthood, some individuals will have already transitioned without medical intervention, while others may have had puberty medically suspended in order to prevent the emergence of undesired secondary sex characteristics, and others may have initiated cross-sex hormone treatments. Some of these individuals may have previously formulated a plan, together with their healthcare providers, to move to the next stage of medical/surgical gender transition as soon as they reach the legal age of majority and can legally assume responsibility for themselves and give informed consent. Such individuals may seek the services of mental health professionals at this point only for the assessment of their eligibility and readiness for the desired procedures as required by the WPATH SOC or their particular provider's policy.

As is the case with GID in childhood and adolescence, and for similar reasons, there are no RCTs pertaining to any treatment intervention in adults. Nor is there universal agreement regarding treatment goals other than improving the sense of well-being and overall functioning of the individual. Recently, the greatest emphasis has been placed on subjective patient reports, particularly those of satisfaction and self-perceived improvement or regrets. Several correlates of regret have been identified, including major co-existing psychiatric issues such as psychosis or alcohol dependency; an absence of, or a disappointing, real-life experience; and disappointing cosmetic or functional surgical results (Bodlund & Kullgren, 1996; Botzer & Vehrs, 1995; De Cuypere & Vercruysse, 2009; Eldh, Berg, & Gustafsson, 1997; Gijs & Brewaeys, 2007; Kuiper & Cohen-Kettenis, 1998; Landen, Walinder, Hambert, & Lundstrom, 1998; Lundstrom, Pauly, & Walinder, 1984; Pfäfflin & Junge, 1998; Walinder, Lundstrom, & Thuwe, 1978). Regrets are somewhat more frequent for patients with late as opposed to early onset of GID. For both early and late onset groups, a favorable outcome is more likely among individuals who were high functioning prior to transition, and who received care, including surgeries, from experienced providers, and who were satisfied with the quality of their surgical results.

As was the case for GID in children and adolescents, database searches failed to reveal any RCTs related to addressing the mental health issues raised by GID in adults. Most of the literature addressing psychotherapy with gender variant adults would be categorized as APA level G and consists of case reports and review articles without additional data analysis. This body of work, nevertheless, identifies the major issues that should be addressed in psychotherapy with these individuals. There are some level B studies examining satisfaction/regret following sex reassignment (longitudinal follow-up after an intervention, without a control group); however, many of these studies obtained data retrospectively and without a control group (APA level G). Overall, the evidence suggests that sex reassignment is associated with an improved sense of well-being in the majority of cases, and also indicates correlates of satisfaction and regret. No studies have directly compared various levels of mental health screening prior to hormonal and surgical treatments on outcome variables; however, existing studies suggest that comprehensive mental health screening may be successful in identifying those individuals most likely to experience regrets (Bodlund & Kullgren, 1996; Botzer & Vehrs, 1995; De Cuypere & Vercruysse, 2009; Eldh et al., 1997; Gijs & Brewaeys, 2007; Kuiper & Cohen-Kettenis, 1998; Landen et al., 1998; Lundstrom et al., 1984; Pfäfflin & Junge, 1998; Walinder et al., 1978).

Opinion Regarding Treatment Recommendations

The Task Force concludes that, with subjective improvement as the primary outcome measure, the existing evidence base combined with clinical consensus is sufficient for developing recommendations in the form of an APA Practice Guideline. Areas where recommendations can be made include the following: (1) assessing and diagnosing patients' gender concerns according to DSM criteria and assuring that these are appropriately addressed; (2) assessing and correctly diagnosing any co-existing psychopathology and assuring that it is addressed adequately. This may entail modification of the plans/schedule for gender transitioning; (3) distinguishing between GID with concurrent psychiatric illness and gender manifestations that are not part of GID but epiphenomena of psychopathology; (4) engaging in psychotherapy with gender variant individuals as indicated. This includes identifying the elements that should be addressed in therapy, including the impact of discrimination and stereotyping; (5) ensuring that individuals who are in the process of transitioning, or who are considering or planning to do so, receive counseling from a qualified professional about the full range of treatment options and their physical, psychological, and social implications, including both their potential benefits and the full range of potential limitations (e.g., loss of reproductive potential), risks and complications; (6) ascertaining eligibility and readiness for hormone and surgical therapy, or locating professionals capable of making these ascertainments to whom the patient may be referred; (7) educating family members, employers, and institutions about GV including GID; (8) ensuring that documentation, including preparation of letters to endocrinologists and surgeons, employs terminology that facilitates accurate communication, minimizes pejorative or potentially stigmatizing language, and conforms (when applicable) to standards for third party reimbursement and tax deductible medical expense.

Individuals with Disorders of Sex Development

Overview and Synopsis

As employed here, the term disorders of sex development (DSD) refers to congenital conditions (formerly referred to as intersex disorders, hermaphroditism, and pseudohermaphroditism) which entail atypical development of chromosomal, gonadal, and/or genital sex. The gender that should be assigned may not be obvious at birth and, in many cases, the process of decision making with respect to gender assignment is complex and fraught with uncertainties. Genitoplasty is often employed to bring the appearance of the external genitalia in line with the gender assigned. Additionally, gonadectomy must be considered in a variety of DSD syndromes due to increased risk of malignancy. The multiple medical (e.g., malignancy risk) and psychological (cross-gender puberty) factors that bear on such decisions were acknowledged by the Task Force as were the current debates regarding the timing of gonadectomy and the lack of consensus regarding the multiple issues relating to genital surgeries performed on minors. Readers are referred elsewhere for various viewpoints on these controversial interdisciplinary issues (e.g., Brown & Warne, 2005; Consortium on the Management of Disorders of Sex Development, 2006a; Frimberger & Gearhart, 2005; Hughes, Houk, Ahmed, & Lee, 2006; Speiser et al., 2010; Sytsma, 2006; Wiesemann, Ude-Koeller, Sinnecker, & Thyen, 2010). Some individuals with DSDs, in a proportion that varies greatly with syndrome and assigned gender, become dysphoric in the assigned gender and may reject it. A variety of issues in the clinical care of individuals with DSDs require the expertise of mental health professionals (Consortium on the Management of Disorders of Sex Development, 2006a; Meyer-Bahlburg, 2008). This Task Force Report addresses only those issues related to gender dysphoria and gender transition in these individuals. The clinical options and decision making processes that bear on gender transition and reassignment overlap to some extent regardless of the presence or absence of a DSD. When a DSD is present, however, there are fewer barriers to legal gender reassignment, and the barriers to hormonal and surgical treatments in conjunction with gender reassignment are lower.

Major areas of involvement of mental health professionals in the care of individuals with DSDs and gender dysphoria include (1) the evaluation of gender identity and the assessment of incongruences, if present, between gender identity and assigned gender; (2) decision making regarding gender reassignment; (3) psychotherapy to address significant gender dysphoria in individuals with a DSD who do not transition gender; (4) selected psychological/psychiatric aspects of the endocrine management of puberty in the context of gender reassignment; and (5) selected psychological/psychiatric aspects of genital surgery in the context of gender reassignment.

The literature bearing on the above issues includes numerous long-term follow-up studies (APA levels B and C) of gender outcome in individuals with DSDs, including some with gender dysphoria and reassignment. These often have significant methodological weaknesses related to sample size and heterogeneity as well as inadequate control groups. There are also multiple reviews (APA level F), some of which integrate data from accessible case reports and small-group studies (e.g., Cohen-Kettenis, 2005; Dessens, Slijper, & Drop, 2005; Mazur, 2005; Meyer-Bahlburg, 2005a, b).

Opinion Regarding Treatment Recommendations

The general absence of systematic studies linking particular interventions within the purview of psychiatry to mental health outcome variables largely limits the development of practice recommendations for DSDs to their derivation from clinical consensus. For individuals with gender dysphoria and a DSD, consensus recommendations could be developed for (1) the evaluation of gender identity and assessment of incongruence between gender identity and assigned gender; (2) decisions/recommendations regarding gender reassignment based on assessment; (3) psychotherapy to address dysphoria in the context of incongruence between gender identity and assigned gender in the absence of desire for gender transition. Although recent medical guidelines emphasize the desirability of and need for mental-health service providers with expertise in this area of care it is premature to recommend detailed guidelines on their required qualifications. To do so might jeopardize existing providers rather than contribute to closing the gap in the availability of mental-health service providers. Recommendations regarding the mental health needs of individuals with DSDs and their caregivers, whether or not gender dysphoria is present are found in Appendix 2 and are not summarized here.

Why APA Recommendations are Needed for the Treatment of GID

APA recommendations are needed for the treatment of GID for a variety of reasons. First, the existing guidelines, SOC, and policy statements of other professional organizations, including the WPATH SOC, and recent reviews highlight the role of mental health professionals in a multidisciplinary team approach to providing medical services to individuals with GID (American Medical Association House of Delegates, 2008a, b; British Society for Paediatric Endocrinology and Diabetes Clinical Committee, 2009; Consortium on the Management of Disorders of Sex Development, 2006a; Di Ceglie, Sturge, & Sutton, 1998; Gooren, 2011; Hembree et al., 2009); however, to date no professional organization of mental health practitioners provides such recommendations. The Task Force on Gender Identity and GV of the American Psychological Association has recently called for guideline development by its parent organization. Exactly when such guidelines will be available remains to be determined; however, their preparation is expected to get underway shortly. A call for nominations to a "Task Force on Guidelines for Psychological Practice with Transgender and Gender Non-Conforming Clients" was issued by the American Psychological Association on April 8, 2011. Recognizing the current absence of guidelines by any professional organization of mental health professionals, the clinical practice guideline of the Endocrine Society (Hembree et al., 2009) states that mental health professionals usually follow the guidelines set forth by WPATH. Although WPATH is not a professional organization of mental health professionals, it counts many mental health professionals among its members, including psychologists, psychiatrists, and psychiatric social workers. A limitation of the current WPATH SOC (version 6), which will be remedied in the forthcoming version 7, is that it does not cite its underlying evidence base, nor indicate the level of evidence upon which its standards are based. An appreciation of the quality of evidence upon which recommendations are based is critical for the practitioner who must judge whether or not implementation of a particular recommendation is likely to be in the patient's best interest. Version 7 of the WPATH SOC is now in preparation, and in that context numerous reviews of the supporting evidence have recently been published. In fact, all four issues of the 2009 volume of *International Journal of Transgenderism* are devoted to this topic.

Second, although the practice of psychiatry overlaps with that of other medical specialties as well as with other mental health fields, including psychology, it is distinct in many respects. In particular, the diagnosis and treatment of major mental illnesses (e.g., psychotic disorders) in which gender identity concerns may arise as epiphenomena are primarily within the purview of psychiatrists, as are the pharmacological management of psychiatric disorders that may coexist with GID (e.g., mood and anxiety disorders and the assessment of undesired psychiatric manifestations of hormonal manipulations). It is, therefore, important that the available clinical evidence be evaluated from a psychiatric perspective for the benefit of practicing psychiatrists and their patients. Third, it is likely that APA guidelines would positively impact the number of psychiatrists willing to provide services to individuals with GID as well as the development of opportunities to receive training in providing such care. Such opportunities could include continuing medical education (CME) activities as well as workshops and similar venues at national meetings such as the APA and AACAP.

Finally, recommendations from the APA would frame its position on what constitutes realistic and ethical treatment goals as well as what constitutes ethical and humane approaches to treatment. In addition to providing guidance to psychiatrists and other healthcare professionals, such a document would provide guidance to consumers of mental healthcare services, including the primary caregivers of minors with GID, in selecting among the various available approaches to treatment.

Recommendations for the APA

1. The opinion of the Task Force is that the current credible literature is sufficient to support treatment recommendations and that such recommendations are needed. The Task Force, therefore, recommends that the APA proceed with developing treatment recommendations. These recommendations should address, but not be limited to, those areas identified in this report for which recommendations are needed and substantial support is available from either research data or clinical consensus within the literature. With the possible exception of GID in adults, it is unlikely that GID/GIDNOS will meet the criteria to be prioritized by the SCPG for APA Practice Guideline development. If not, the Task Force suggests that recommendations for each of the groups discussed in this report (children, adolescents, adults, individuals with DSDs) be prepared as APA Resource Documents.

2. There is a critical need for an APA Position Statement on the Treatment of GID, and given the time it will take to develop treatment recommendations, a position statement should precede the development of recommendations. In recent years, the APA has received many requests from advocacy groups and the media inquiring about APA's position on the treatment of individuals with GID. As the APA has never had any specific component charged with directly addressing such inquiries, such questions were usually referred by default to the Committee on Gay, Lesbian and Bisexual Issues which was sunset during the restructuring of APA components in 2008. Examples of questions received include: How can primary caregivers best nurture a child with GID? Does any APA documentation define what is considered humane and ethical treatment of individuals, especially children, with GID? What constitutes medically necessary treatment for individuals of different age groups who meet criteria for GID? To what level of GID-related care are individuals entitled if their care is provided, or paid for by, governmental bodies (e.g., adolescents in foster care, prisoners, military personnel and veterans)? Is SRS a standard treatment that should be routinely covered by insurance?

The APA first introduced GID as a category of diagnostic entities in 1980. Thirty years later, other than the DSM diagnoses, the APA has no official position statements pertaining to, or even mentioning, these diagnostic entities. In particular, the APA has not addressed the issue of what constitutes either ethical and humane or medically necessary treatment for the GID diagnoses. Requests for psychotherapeutic, hormonal, and surgical treatments for GID, or their reimbursement, are frequently denied because they are perceived by private and public third party payers as cosmetic or unnecessary procedures rather than medically necessary or standard medical and mental health care (Minter, 2003). A document by the WPATH board of directors and executive officers discusses the term, *medically necessary*, as it is commonly used among health insurers in the United States and lists those aspects of GID treatment that meet the definition (Whittle et al., 2008). While the existence of the diagnosis contributes to the stigma of affected individuals, the unintended result of the APA's silence is a failure to facilitate full access to care for those diagnosed with GID. The Task Force, therefore, recommends that the APA consider drafting a resolution, similar to Resolution 122 of the American Medical Association (American Medical Association House of Delegates, 2008b). This resolution concludes that medical research demonstrates the effectiveness and necessity of mental health care, hormone therapy and SRS for many individuals diagnosed with GID and resolves that the AMA supports public and private health insurance coverage for medically necessary treatments and opposes categorical exclusions of coverage for treatment of GID when prescribed by a physician.

3. This Task Force strongly endorses recent medical and psychological guidelines that emphasize the desirability of, and need for, mental-health service providers with expertise in providing services to individuals with gender dysphoria, GID and DSDs (Consortium on the Management of Disorders of Sex Development, 2006a; Hembree et al., 2009; Hughes et al., 2006; Meyer-Bahlburg, 2008; Speiser et al., 2010). It is the opinion of this Task Force, however, that detailed restrictions on required qualifications of the mental health practitioners who provide these services are not desirable. Such restrictions might jeopardize existing providers rather than contribute to closing the gap in the availability of mental-health service providers. Instead, the Task Force recommends that the APA create opportunities for educating mental healthcare providers in this area of care. Such opportunities could include CME activities as well as workshops and similar venues at national meetings such as the APA and AACAP.

4. The Task Force recommends that a structure, or structures, within the APA be either identified or newly created and charged to follow up on the recommendations of this report, to periodically review and update resulting treatment recommendations, to identify areas where research is particularly needed to optimize treatment, and to identify means to facilitate such research.

Literature Reviews

GV in Childhood

Edgardo J. Menvielle, M.D., M.S.H.S. and Richard R. Pleak, M.D.

The optimal approach to treating pre-pubertal children with GV, including DSM-defined GID, is much more controversial than treating these phenomena in adolescents and adults for several reasons. Intervention, or the lack thereof, in childhood as opposed to later may have a greater impact on long range outcome (Crouch, Liao, Woodhouse, Conway, & Creighton, 2008); however, consensus is lacking regarding the definition of desirable outcomes. Further, children have limited capacity to participate in decision making regarding their own treatment and must rely on caregivers to make treatment decisions on their behalf. An additional obstacle to consensus is the lack of randomized controlled treatment outcome studies of children with GID or with any degree of GV (Zucker, 2008b). In the absence of such studies, the highest level of evidence currently available for treatment recommendations for these children can best be characterized as expert opinion. Such opinions do not occur in a complete vacuum of relevant data, but are enlightened by a body of literature (mostly APA level C and lower), including systematic experimental single-case trials as well as both uncontrolled and inadequately controlled treatment studies, longitudinal studies without intervention, and clinical case reports.

Opinions vary widely among experts depending on a host of factors, including their theoretical orientation as well as their assumptions and beliefs (including religious) relating to the origins, meanings, and fixity/malleability of gender identity. For example, do gender variations represent natural variations, not assimilated into the social matrix, or pathological mental processes? Even among secular practitioners there is a lack of consensus regarding some of the most fundamental issues: What are indications for treatment? What outcomes with respect to gender identity, gender role behaviors, and sexual orientation are desirable? Is the likelihood of a particular outcome altered by intervention? What constitutes ethical treatment aimed at bringing about the desired changes/outcomes? Adding to this complexity, service seekers as well as providers differ in their religious and cultural beliefs as well as in their world-views regarding gender identity, appropriate gender role behaviors, and sexual orientation. Primary caregivers may, therefore, seek out providers for their children who mirror their own world views, believing that goals consistent with their views are in the best interest of their children.

We begin by examining the natural history of GID as defined by outcome without treatment. We then discuss the goals of interventions in treating these children and the factors that influence clinicians in goal selection. Next, we describe various interventions that have been proposed. The empirical data available to inform the selection of goals and interventions are then reviewed and an opinion is offered regarding the status of current credible evidence upon which treatment recommendations could be based.

Outcome Without Treatment

The natural history or outcome of untreated children with GID is that a minority will identify as transsexual or transgender in adulthood (a phenomenon termed *persistence*), while the majority will become comfortable with their natal gender over time (a phenomenon termed *desistence*) (Davenport, 1986; Green, 1987; Wallien & Cohen-Kettenis, 2008; Zuger, 1978). As reviewed by Wallien and Cohen-Kettenis (2008), the rate of persistence into adulthood was initially reported to be exceedingly low, but more recent studies suggest that it may be 20 % or higher. In one recent study of gender dysphoric children (59 boys, 18 girls; M age, 8.4 years; age range, 5–12 years), 27 % (out of 54 who agreed to participate in the follow-up study) remained gender dysphoric at follow-up 10 years later. At follow-up, nearly all male and female participants in the persistence group reported having a homosexual or bisexual sexual orientation. In the desistance group, all of the girls and half of the boys reported having a heterosexual orientation. The other half of the boys in the desistance group had a homosexual or bisexual sexual orientation.

A more recent study (Drummond, Bradley, Peterson-Badali, & Zucker, 2008) assessed 25 girls in childhood (M age, 8.88 years; range, 3–12 years) and again as adolescents or adults (M age, 23.24 years; range, 15–36 years). At the assessment in childhood, 60 % of the girls met the DSM criteria for GID, and 40 % were subthreshold for the diagnosis. At follow-up, 3 participants (12 %) were judged to have GID or gender dysphoria. Regarding sexual orientation, 8 (32 %) participants were classified as bisexual/homosexual in fantasy, and 6 (24 %) were classified as bisexual/homosexual in behavior. The remaining participants were classified as either heterosexual or asexual. At follow-up, the rates of GID and bisexual/homosexual sexual orientation were substantially higher than base rates in the general female population derived from epidemiological or survey studies.

Desistence develops gradually over the preadolescent period (primarily between 8 and 12 years) for unknown reasons which have been postulated to include social ostracism, early pubertal hormonal changes, and cognitive development (Wallien & Cohen-Kettenis, 2008). It has also been noted that, compared to "persisters," "desisters" may experience less gender dysphoria in childhood (Wallien & Cohen-Kettenis, 2008). The reliability of adult transsexuals' reports of childhood gender nonconformity has been discussed by Lawrence (2010). A substantial proportion of adult transsexuals retrospectively report that, as children, gender conformity and/or gender dysphoria that were kept private, never leading to clinical referral (Cole, Denny, Eyler, & Samons, 2000; Denny, 1992). Some may also reinterpret childhood memories in light of later life events and recall greater degrees of gender non-conformity than were apparent in childhood, thereby making the decision to transition gender more easily explicable to self and others (Bancroft, 1972). Some patients report exaggerating the history of gender non-conformity in order to be regarded by mental health and other professionals as appropriate candidates for medical services related to gender transition (Fisk, 1974).

In Green's (1987) longitudinal study of gender-referred boys, psychotherapy as children did not appear to have any effect on gender identity or sexual orientation in young adulthood, but the numbers of boys in various types of therapy were too small to draw strong conclusions. To date, no long-term follow-up data have demonstrated that any modality of treatment has a statistically significant effect on later gender identity or sexual orientation.

Treatment Goals and Objectives

The overarching goal of psychotherapeutic treatment for childhood GID is to optimize the psychological adjustment and well-being of the child. The literature reflects a broad consensus regarding several other goals, including appropriate diagnosis and treatment of concomitant psychopathology as well as disorders or conflicts whose manifestations may be confused with GID, and building the child's self-esteem (Hembree et al., 2009; Meyer-Bahlburg, 2002b; Perrin, Smith, Davis, Spack, & Stein, 2010; Richardson, 1999; Zucker, 2008a). Although the child is the designated patient, there is also consensus regarding the need for parental psychoeducation, assessment, and adequate attention to parental psychopathology and parent–child conflicts (Coates et al., 1991; Zucker, 2008a).

What is viewed as essential for optimizing the well-being of the child differs among clinicians, as does the manner in which the various potential goals of treatment should be prioritized relative to one another. For example, should re-shaping the child's gender behaviors (e.g., increasing gender-conforming behaviors and/or decreasing gender non-conforming behaviors) be a primary therapeutic goal? Some have argued against directly targeting non-conforming behaviors (Ehrensaft, 2011; Hill et al., 2010; Pleak, 1999), while recognizing that some forms of co-existing psychopathology in children with GID (e.g., depression) may be secondary to poor peer relations resulting from peer rejection due to the cross-gender identification. Modifying the child's cross-gender behaviors has been suggested by others to alleviate short term distress by improving peer relations and perhaps preventing the development of other psychopathological sequelae (Zucker, 1990).

Opinions also differ regarding the question of whether or not prevention of adult transsexualism should be a goal of therapy. Zucker concludes that "there is little controversy in this rationale, given the emotional distress experienced by gender-dysphoric adults and the physically and often socially painful measures required to align an adult's phenotypic sex with his or her subjective gender identity" (Zucker, 1990). Given the absence of any evidence that therapy is effective in preventing transsexualism in adulthood together with concerns that therapy with that aim may be damaging to self-esteem, others challenge prevention as an acceptable goal. Among clinicians who share this second view, some endorse allowing the child to live in their preferred gender role to the extent that it is deemed safe to do so (Edwards-Leeper & Spack, 2011; Ehrensaft, 2011). Some children may choose to present in the gender congruent with their biological sex in most social settings in order to avoid teasing and ridicule, but may present as their preferred gender at home and in other "safe" environments. Other children may become extremely depressed and even suicidal if not permitted to live in their preferred gender in all settings. Thus, some clinicians endorse childhood gender transition in at least some cases (Edwards-Leeper & Spack, 2011; Ehrensaft, 2011).

The rationale for supporting transition before puberty is based on the belief that in some children a long term transgender outcome is to be expected and that these children can be identified so that primary caregivers and clinicians may opt for early social transition. An additional argument is that children who transition this way can always revert to their originally assigned gender if necessary, since the transition is only done at a social level and without medical intervention (Brill & Pepper, 2008) although this may not be without complications (Steensma et al., 2011). The main counterarguments to this approach hinge on the finding that GID in children usually does not persist into adolescence and adulthood. Thus, supporting gender transition in childhood might hinder the child's development or perhaps increase the likelihood of persistence (Pleak, 2010). Furthermore, the peer-reviewed literature does not support the view that desisters and persisters can currently be distinguished reliably as children (Cohen-Kettenis & Pfäfflin, 2010; Wallien & Cohen-Kettenis, 2008; Zucker, 2007, 2008b).

Yet another approach to working with children with GID is to remain neutral with respect to gender identity and to have no goal with respect to gender identity outcome. Instead, the goal is to allow the developmental trajectory of gender/sexuality to unfold naturally without pursuing or encouraging a specific outcome (Ehrensaft, 2011; Hill et al., 2010; Pleak, 1999). The position in favor of supporting free gender expression is centered on the assumption that self-esteem may be damaged by conveying to the child that his/her likes and dislikes as well as mannerisms are somehow intrinsically wrong. The counter argument proposes that self-esteem can be best served by improved social integration, including the ability to make same sex friendships. Here the assumption is that the derived psychological benefits brought about by conforming to social expectations outweigh the benefits of expressing the putative "true gender self" (Ehrensaft, 2011) freely when it deviates significantly from social gender norms. Alternatively, the child's self-recognition of a gender variant and stigmatized status may be actively encouraged with the goal of mastery (e.g., developing cognitive, emotional and behavioral coping tools) (Ehrensaft, 2011). As reviewed by Zucker (1990), there is currently widespread recognition among mental health professionals that homosexuality is not inherently related to general psychopathology or mental disorders. Nevertheless, it has been suggested that treatment of gender variant children for the prevention of homosexuality can be justified on other grounds, including parental values (Green, 1987) as well as religious values (Rekers, 1982). Given the absence of evidence that any form of therapy has an effect on future sexual orientation, however, such efforts are presently controversial, and this point should be addressed in the psychoeducation of primary caregivers. Further, it has been argued that offering therapy aimed at preventing homosexuality could have the effect of labeling homosexuality as an inferior and undesirable condition, thereby increasing prejudice and discrimination towards lesbians and gay men (Byne & Stein, 1997). Parallel arguments could be made regarding attempts aimed at preventing transsexualism.

Types of Interventions

A variety of intervention modalities has been proposed to achieve the above goals. Therapeutic approaches to work with children with GID include individual insight-oriented psychoanalytic or psychodynamic psychotherapy (Coates et al., 1991); protocol-driven psychotherapy such as behavior modification (Rekers, 1979); parent and peer-relations focused therapy (Meyer-Bahlburg, 2002b), and parent and child therapeutic groups (Ehrensaft, 2011; Menvielle & Tuerk, 2002; Pleak, 1999). Other proposed interventions are best characterized as self-advocacy and educational: support groups for primary caregivers; community education through websites and conferences; school-based curricula; and specialized youth summer camps. As in other disorders, the recommendation for a particular therapy often hinges on the therapist's preferences and training. This is especially true for GID, however, in light of the lack of consensus on the goals for therapy, the malleability of gender identity, and the controversies surrounding the ethics of aiming to influence identity development.

Even though the child should be the ultimate beneficiary of treatment, the primary focus of intervention is sometimes the primary caregivers (e.g., via parenting support and psychoeducation as well as guidance in reinforcing behavior modification, and building self-acceptance and resilience in the child) and often multi-pronged interventions are necessary that involve, not only the child and family, but the community (e.g., via bullying prevention and diversity education). Some approaches may center on the primary caregivers to minimize therapist contact with the child in order to avoid placing the child squarely in the clinical spotlight which can be stigmatizing (Ehrensaft, 2011; Meyer-Bahlburg, 2002b). This is particularly true of work with very young children in which the primary caregivers may be targeted with the aim of empowering them with the understanding and skills necessary for optimally parenting their child with GID (Ehrensaft, 2011). Additionally, psychodynamic theories have sometimes focused on the primary caregivers (Stoller, 1985) or parent–child conflict (Haber, 1991) as possible causal factors in GID, providing a different rationale for primary caregivers as the target(s) of intervention. Problems in parent–child attachment interacting with temperamental dispositions in the child have been suggested to be causally implicated in GID and have been cited as a focus for psychodynamic therapy of the child (Coates et al., 1991). Zucker and Bradley (1995) observed higher levels of psychopathology in clinical samples of primary caregivers and suggested that parental psychological abnormalities may contribute to GID. These observations, however, do not distinguish between cause and effect. Whatever the directionality of the cause and effect relationship, parental distress and psychopathology should be assessed and appropriately addressed as part of a comprehensive treatment approach.

Outcome Research

Very few studies have systematically researched any given mode of intervention with respect to an outcome variable in GID and no studies have systematically compared results of different interventions. Some of the earliest treatment studies of children with GID were done in the 1970s by Rekers and colleagues in individual and small case series using behavioral methods (Rekers, 1977; Rekers, Rosen, Lovaas, & Bentler, 1978). These authors tested behavior modification in boys through contingency management, including punishment [e.g., "response cost" procedures (Rekers & Lovaas, 1974)] of feminine behaviors with a stated goal being prevention of later homosexuality and transsexualism. Short-term treatment success was reported with a decrease in gender non-conforming behaviors. Long term follow-up studies, however, were not reported so there is no evidence that these effects were enduring or that intervention influenced either gender identity or sexual orientation. Although Rekers' reports were widely criticized (Morin & Schultz, 1978; Pleak, 1999; Wolfe, 1979) for using punishment and religious persuasion with the goal of prevention of homosexuality, his general goals for interventions with children with GID have been shared by a few other clinicians (e.g., Nicolosi & Nicolosi, 2002; Socarides, 1995) and endorsed by controversial mental health organizations such as the National Association for Research and Therapy of Homosexuality (www.narth.org).

A parent-and peer-relations focused protocol for boys with GID was tested by Meyer-Bahlburg (2002b). The treatment focused on the interaction of the child with the primary caregivers and with the same-gender peer group. The goals were developing a positive relationship with the father (or father figure), developing positive relationships with male peers, developing gender-typical skills and habits, fitting into the male peer group, and feeling good about being a boy. To minimize the child's stigmatization, only the primary caregivers attended treatment sessions which focused on such issues as parents' gender attitudes, changing family dynamics when the father increases positive interaction with the boy, selection of appropriate same-sex peers for play dates, selection of summer camp, supporting artistic interests and talents, etc. The therapy also involved ignoring rather than prohibiting or bluntly criticizing the boy's cross-gender behaviors and distracting him in contexts typically leading to cross-gender behaviors, while giving him positive attention when he engaged in gender-neutral or masculine activities.

The sample consisted of 11 boys. Age at evaluation ranged from 3 years, 11 months to 6 years with a median of 4 years, 9 months. Eight boys were diagnosed as having GID of childhood and three as having GIDNOS. Treatment was terminated in most cases when the goals stated above were judged to have been fully reached. Ten of the 11 cases showed such marked improvement; only one did not and was, therefore, judged to be unsuccessful. The total number of treatment visits per family ranged from 4 to 19 (with a median of 10). In some cases, treatment for other family problems, such as marital conflict or individual psychiatric problems of the primary caregivers, continued after treatment of the child's GID was completed. Follow-up was done mostly by telephone. The duration of follow-up was left to the primary caregivers and varied up to several years. There was no significant recurrence of GID or GIDNOS in the 10 successful cases, although several primary caregivers reported occasional recurrence of some cross-gender activities, especially during the first winter following treatment when the children were homebound and peer contacts diminished.

Some therapists, including the present authors, modify Meyer-Bahlburg's (2002b) parent- and peer-centered approach. This entails working with the family in a psychoeducational and supportive approach, promoting the child's self-esteem and decreasing family dysfunction, while assisting the family with the child's positive adaptation regardless of gender identity. This approach involves much work with the primary caregivers and other family members, as well as with the school or other facilities, and can include support groups for the primary caregivers (Hill et al., 2010; Menvielle, Perrin, & Tuerk, 2005; Pleak, 1999). The goals are to allow the child to have a variety of experiences and to promote positive adaptation to whatever gender identity and sexual orientation the child will have as an adolescent and adult, and to assist the family in accepting and supporting their child regardless of outcome. The present authors (unpublished) have observed improved self-esteem, decreased behavioral disturbance, improved family functioning, and generally less cross-gender behavior using this approach. One of the authors (Pleak, unpublished) has followed up 10 boys with GID who were in treatment between ages 3 and 12 years old. In young adulthood, 7 identify as gay men, 1 as bisexual; 1 has undergone sex reassignment and is now a woman; and 1 who has Asperger's disorder, has no romantic or sexual relationships with other people, but identifies entirely as male and reports sexual fantasies about women. As adults, all acknowledge their previous GV in behavior and identity, and the 9 who did not become transsexual say they have not felt cross-gendered since adolescence.

Conclusions

Web-based literature searches failed to reveal any randomized controlled studies related to any of the issues germane to treatment of children with GID. The majority of studies would be categorized as APA evidence category G, such as individual case reports, and APA evidence category C, such as longitudinal follow-up studies without any specific intervention (Green, 1987). A few reports might be categorized as APA level B (clinical trials); however, these lacked control groups (or an adequate control group) and/or the follow-up interval was brief (Meyer-Bahlburg, 2002b; Rekers, 1979; Rekers & Mead, 1979). In light of the limited empirical evidence and disagreements about treatment approaches and goals among experts in the field and other stakeholders, recommendations supported by the available literature are largely limited to the areas of consensus identified above and would be in the form of general suggestions and cautions. One such caution would be to inform primary caregivers and children (in an age-appropriate manner) of the realistic therapeutic goals, available treatment options, and the lack of rigorous evidence favoring any particular treatment over another for attaining a particular goal. Families should be informed about potential outcomes, including the possibility that the child's experience/perception of the gendered self may change as they mature. The range of possible long-term outcomes discussed should include homosexuality, heterosexuality, varying degrees of comfort/discomfort with sex of birth, and variance in gender expression in relation to stereotypes, including the pursuit of medical/surgical interventions for sex reassignment. Clinicians should be sensitive to the primary caregivers' values and wishes but also be alert to the possibility of parental decisions being driven by a wish to normalize the child through therapy intended to increase gender conformity (or heterosexuality) or through premature gender role transition. At the same time, clinicians should be cautioned against wholesale rejection of gender role transition when this may be in the best interest of the child, even if in a relatively small number of cases (Steensma & Cohen-Kettenis, 2011). Clearly, therapy cannot be offered with the promise of preventing either transsexualism or homosexuality. Even offering treatment with such aims raises ethical concerns and these have been addressed elsewhere (Dreger, 2009; Pleak, 1999).

GV in Adolescence

Susan J. Bradley, M.D. and Richard Green, M.D., J.D.

For the purpose of this report, adolescents will be defined as youth between the ages of 12 and 18. Problems of gender identity present as a spectrum with some adolescents having long-standing gender dysphoria and wishes to be the other sex (typically evident in childhood) while others present with a more recent onset of gender dysphoria, sometimes in the context of more broad identity confusion and less clear definition of their identity as the other sex. For example, we have seen several adolescent females with recent onset of a wish for SRS following a sexual assault. Other adolescents may present with clear body dysmorphic disorder, psychosis, severe depression, and Asperger's disorder, with the wish for SRS appearing almost as a secondary phenomenon. Those adolescents whose GID symptoms were clearly present in childhood and have continued into adolescence are generally less complicated to manage. According to Cohen-Kettenis and van Goozen (2002), this "persistent" group may have less overt psychopathology. Those whose GID symptoms emerge later, often with pubertal changes and/or in the context of a psychiatric disorder or following Transvestic Fetishism, present with a more complicated management picture. Although many of the same issues arise for both early and later onset groups, the timing at which particular issues arise and how they are managed clinically may vary between the two groups. The consensus among the clinicians with the most experience in this area is that it is important to address major co-occurring psychiatric issues prior to the gender issues in both early and later onset groups (de Vries & Cohen-Kettenis, 2009; Zucker & Cohen-Kettenis, 2008). In the absence of other contributory issues, as is more common with the early onset group, supportive work towards transition may be appropriate (de Vries & Cohen-Kettenis, 2009; Zucker & Cohen-Kettenis, 2008).

Searches of PubMed and PsychInfo databases failed to reveal any randomized controlled trials (RCTs) related to any of the issues germane to treatment of adolescents with GID. The majority of studies would be categorized as APA evidence category G, such as individual case reports (Babinski & Reyes, 1994), APA evidence category C, such as longitudinal follow-up studies without a control groups, (e.g., Cohen-Kettenis & van Goozen, 1997; McCauley & Ehrhardt, 1984; Smith et al., 2005a), APA evidence category B, such as follow-up studies with control groups of limited utility and without random assignment (e.g., Smith et al., 2001; Steensma et al., 2011), and APA evidence category F, such as reviews of the above, some of which were exhaustive (e.g., Cohen-Kettenis et al., 2008; Tugnet, Goddard, Vickery, Khoosal, & Terry, 2007; Zucker, 2007; Zucker & Cohen-Kettenis, 2008). There are two clinics (The Gender Clinic at the Vrije University Medical Center, Amsterdam, The Netherlands, and the Gender Identity Service at the Centre for Addiction and Mental Health, Toronto, Canada) that have sufficient numbers of subjects and where there is systematic data collection to act as an "experience base" from which to guide both the inquiry and possibly expert opinion on the main issues in adolescence. Unfortunately, additional studies to either corroborate or challenge the findings of these clinics are not available.

This report will begin by considering the assessment of individuals presenting with a wish for gender reassignment, and then consider the evidence for psychotherapy, the real life experience, medical suspension of puberty, and cross-sex hormones. An assessment of the evidence base regarding each of these issues is given as well as an opinion regarding the development of treatment recommendations. SRS is not performed on adolescents in the United States and is, therefore, not addressed in detail.

Assessment

Follow-up studies of adolescents and adults from the Dutch clinic emphasize the importance of good assessment with respect to comorbid psychopathology (Cohen, de Ruiter, Ringelberg, & Cohen-Kettenis, 1997; de Vries, Steensma, & Cohen-Kettenis, 2011; Smith et al., 2001, 2005a; Smith, van Goozen, Kuiper, & Cohen-Kettenis, 2005b). Better outcomes from SRS were seen in female-to-male transsexuals (FTMs) and male-to-female transsexuals (MTFs) who were primarily erotically attracted to individuals of their natal sex than in MTFs who were not primarily attracted to individuals of their natal sex. MTF individuals in the latter category with more psychopathology and cross-gender symptoms in childhood, yet less gender dysphoria at initial consultation, were more likely to drop out from follow-up prematurely. Such clients with considerable psychopathology and body dissatisfaction reported the worst post-operative outcomes. As described below, the most systematic information is available on the adults (N = 162) while the adolescent samples were smaller (N = 22 and N = 20).

Although the studies from the Dutch clinic are suggestive, the predictors are hardly either well-tested or strong enough to use alone in assessing prospective candidates for SRS. Generally, both clinics believe that those adolescents with higher levels of psychopathology, less gender dysphoria, and/or more recent onset of their wish for sex reassignment should be followed over a period of time in order to treat the more obvious psychopathology (e.g. depression, psychosis, body dysmorphic disorder) and to see if treatment of the psychopathology will lead to a reduction in the wish to proceed to SRS (see case reports of change in wish for SRS with treatment of comorbid psychopathology (Caldwell & Keshavan, 1991; Coleman & Cesnik, 1990; Marks & Mataix-Cols, 1997; Puri & Singh, 1996).

The position of the Toronto clinic has been to aim for neutrality with respect to the issue of gender transition in those situations in which the GID is of recent onset and accompanied by more obvious psychopathology. With those adolescents where there is long-standing GID and the adolescent is already engaged in the "real life experience" or prepared to do so, the Toronto clinic tends to be more positive with respect to supporting transition. Both groups may, however, be offered pubertal suspension as a way of delaying puberty and/or the development of secondary sex characteristics in order to allow more time either for psychotherapy or for planning for the future. Future planning issues include how to present oneself socially as the other sex, how to change one's name, who to tell, and similar issues. Clearly, for the younger adolescent, this means agreement of the primary caregivers. In some cases older, "emancipated" adolescents may proceed without parental agreement.

The Dutch group supports full gender transition, assisted by hormone administration for adolescents who are generally well-adjusted and functioning socially in the preferred gender role, are older than 12 years of age, and have reached Tanner stage 2–3. In a follow-up study of such individuals (N = 20), they reported that with cross-sex hormone treatment in adolescence and SRS at age 18, or shortly thereafter, the outcomes were overall quite positive (as assessed by satisfaction with surgery and lack of regrets) and generally better compared to individuals who underwent SRS later in adulthood (Smith et al., 2001). They also followed a group of adolescents who were refused SRS or chose not to pursue it (N = 21). The reasons for refusal were elevated levels of psychopathology, lack of clarity or consistency regarding the nature and extent of the gender identity concerns resulting in diagnostic uncertainty, and gross psychological instability. Those who did not have SRS showed reductions in gender dysphoria but continued to have more social and emotional difficulties than the SRS group. The difficulty in interpreting this study is that the subjects who were refused or not encouraged to proceed generally had higher levels of psychopathology to begin with. Although there were reductions in psychopathology across all groups, it is impossible to draw conclusions about the efficacy of SRS in reducing comorbid psychopathology because the groups were not matched for level of psychopathology at the outset. Unfortunately, there are no controlled studies with matching of subjects at the outset and random assignment to SRS or supportive therapy. Overall, those who were refused did not regret not being able to pursue SRS. The investigators emphasize the importance of careful evaluation as the initial step in SRS and referral for comorbid psychopathology in those who do not meet careful criteria for gender dysphoria. Clearly, clinical judgment is involved with it being easier to assess and evaluate those with long-standing GID as opposed to the later onset group who tend to present not only with more psychopathology but more uncommon requests such as the desire for drugs to reduce testosterone levels with no overt desire to pursue SRS.

In the Toronto sample, there is significant psychopathology in the adolescent sample, particularly in the late onset group (Zucker et al., 2012). As indicated above, many of these adolescents also present with a shorter duration of cross-gender feelings and less clarity or consistency regarding the nature of their gender concerns as well as histories of trauma, psychosis, body dysmorphic disorder, and severe depression that seem related to their cross-gender feelings. Despite these observations, often these adolescents are very certain that SRS is the "only" solution to their dilemmas and because of this may become very pressuring of doctors in their quest for SRS. Access to internet sites that uncritically support their wishes appears to facilitate their intense desire for hormones and surgery. In order to deal with these issues, both the Dutch and the Toronto groups generally insist on some form of involvement in supportive psychotherapy with a focus on comorbid psychopathology and family issues as well as support around pursuing or not pursuing SRS. Some of these adolescents and their families, however, are reluctant to proceed with psychotherapy or family therapy.

Based on the above, it is important to do a thorough assessment of adolescents presenting with a wish for SRS. This should include an assessment for comorbid psychopathology, particularly any disorder that may have as a secondary phenomenon a tendency to produce gender confusion, such as schizophrenia or psychotic depression, or emergence of the SRS wish in the context of trauma.

Psychotherapy

As indicated above, psychotherapeutic involvement is used not only to explore issues related to the individual's commitment to living in the cross-gender role but also to explore whether the individual has fully explored other options, such as living as a homosexual person without SRS. Attempts to engage the individual in more in-depth psychotherapy to "cure" them of their gender dysphoria are currently not considered fruitful by the mental health professionals with the most experience working in this area (de Vries & Cohen-Kettenis, 2009; Zucker & Bradley, 1995). Instead of psychotherapy aimed at "curing" gender dysphoria, supportive therapy and psychoeducation seem justified on the basis of ensuring that the individual understands and is committed to a long and difficult process and has considered alternatives to SRS. Generally, some time is devoted to supporting the individual's efforts to live and present oneself as the other sex. There have been no systematic studies of the effects of this supportive psychotherapy.

A survey of Dutch psychiatrists who did not work in GID clinics found that 49 % had treated at least one "cross-gender confused" patient. Of 584 patients reported on in the survey, GID was regarded as the primary diagnosis for 39 %. In the other 61 % of cases, cross-gender issues were comorbid with other psychiatric disorders and in the majority of those cases, the gender issues were interpreted as epiphenomena of the comorbid disorder (Campo, Nijman, Merckelbach, & Evers, 2003). The most frequently reported disorders in which "cross-gender confusion" was reported were personality, mood, dissociative, and psychotic disorders (Campo, Nijman, Evers, Merckelbach, & Decker, 2001; Campo et al., 2003), with gender confusion or cross-gender delusions occurring in up to 20 % of individuals with schizophrenia over the course of the illness

(Borras, Huguelet, & Eytan, 2007). Campo et al. (2003) concluded that the survey emphasizes the need for articulated rules to assist mental health specialists in distinguishing GID with a comorbid psychiatric disorder from gender confusion that is an epiphenomenon of another disorder. Knowledgeable clinicians can make this distinction based on the patient's history, including collateral history from friends and family members, and longitudinal follow-up. Most experienced clinicians would agree that, when the adolescent is motivated, supportive psychotherapy is very helpful either to assist in the transition to the other gender or to assist in the individual's decision as to whether to pursue SRS or not.

Expectations for a Period of Living as the Other Sex (The "Real Life" Experience)

Since the original guidelines drafted in 1979 by the Harry Benjamin International Gender Dysphoria Association (HBIGDA), now WPATH, subjects wishing SRS have been expected by the mental health professionals assessing them for suitability to live as the other gender for 1–2 years prior to being approved for surgery. These recommendations for living or presenting oneself as the other gender have been modified over time and there is no absolute agreement as to what length of time nor what aspects of real life experience are critical either to acceptance for SRS or to later outcomes. Many adolescents who have long-standing gender dysphoria may be living as the other gender at the time of assessment, some of them quite convincingly. Others, often in the late onset group, do not appear to have considered how they would begin to present themselves as the other gender and often create a sense of dissonance in the examiners between their wish and their appearance. The extent to which an individual seems engaged in presenting as the other sex often reflects the extent of anatomical gender dysphoria and commitment to hormonal and/or surgical interventions.

Although there has been some loosening in the application of the real life experience over the years and no consensus as to what is a required minimum length of time of such an experience, the majority of professionals working in this area believe that some period of real life experience is important. Further research is needed before a guideline on this issue can be established.

Issues Regarding Suspension of Puberty

Puberty is the critical developmental milestone in the continuation, or not, of GID. Associated body changes can have a negative short- and long-term impact. A person born male who is convinced that he should have the body of a female is distraught at experiencing the testosterone-mediated changes of male puberty. A person born female convinced that she should be male is distraught at the changes brought about by puberty. Assuming that the GID endures, the consequences of undesired pubertal changes are substantial. In the long-term, they are typically more troublesome for the person born male. The stigmata of pubertal body development, including height, bony configuration, hair, and voice are a substantial handicap when later attempting to integrate socially as a woman. For the person born female, there can be a height handicap as well as the need for surgery which could have been avoided by suppression of puberty. Clinicians experienced with GID in adult patients burdened by the pubertal changes of the "wrong sex" and clinicians attempting to help patients with gender who are entering adolescence recognize the need for intervention to prevent both the short- and long-term consequences of the "wrong puberty."

The gonads secrete sex steroids in response to the gonadotropins from the pituitary. These are secreted in response to hypothalamic gonadotropin releasing hormones (GnRH). Synthetic GnRH agonists bind to the pituitary so that GnRH no longer acts. Gonadal sex steroid production ceases within 4–12 weeks and, upon discontinuance, hormonal puberty is resumed within 3 months (de Vries, Cohen-Kettenis, & Delemarre-van de Waal, 2006). Thus, current endocrinological sophistication provides a therapeutic strategy. Puberty, as it begins, can be suspended (Hembree et al., 2009). Administration of GnRH analogues can delay the sex steroid induced progression of body changes. During this period of "time out," the patient and clinician can explore the options available and decide on the optimal future direction of living as a man or as a woman.

The duration of pubertal suspension that can be safely implemented has been of concern. This has focused primarily on the effect of sex steroid deficiency on bone metabolism with its potential for deficient mineralization and possible osteoporosis. Research has demonstrated that a period of up to several years appears to be safe with the deficiency of progressive mineralization being remedied once sex steroids, either those expected by birth sex or those administered for cross-sex development, are available. Peak bone mass occurs at about 25 years of age and long- term treatment data have yet to be reported (Delemarre-van de Waal & Cohen-Kettenis, 2006; de Vries & Cohen-Kettenis, 2009). Significant safety issues connected with the use of hormone suppressing agents have not emerged to date; however, long term follow-up data are lacking.

Adolescence is also a developmental period of substantial brain maturation and concerns have been expressed over possible cognitive deficits consequent to pubertal suspension. There is some evidence in hamsters of a detriment to development or changes in behavior (Schulz & Sisk, 2006); however, there has been no evidence clinically of any consequence of pubertal suspension on brain functioning in humans (Delemarre-van de Waal & Cohen-Kettenis, 2006). Concerns about consequences of pubertal suspension may be tempered by the fact that there is substantial variation in the age of onset of normal puberty (e.g., between the ages of 11 and 16 years).

A critical treatment issue is the diagnostic challenge of selecting patients for whom GID is on a continuing developmental trajectory. The majority of prepubertal patients diagnosed with GID do not continue with GID into adolescence (Green, Roberts, Williams, Goodman, & Mixon, 1987). Most ultimately manifest sexual attraction to persons of their birth sex but have no desire to modify their body to that of the other sex. However, most children whose anatomical gender dysphoria intensifies as pubertal development ensues will ultimately desire SRS. The fit is not perfect. Therefore, pubertal suspension for a year or two provides breathing space for the young person and clinician to experience and to explore the continuing evolution of gender identity.

Adolescent patient selection criteria have included an intense pattern of cross-gender identity and behavior from early childhood, and an increase in gender dysphoria with the onset of puberty in a patient otherwise psychologically stable and in a supportive family environment (de Vries & Cohen-Kettenis, 2009). Clinical experience with pubertal suspension demonstrates that with thorough clinical screening the large majority of patients whose puberty has been suspended continue to experience GID and do not want the body changes typical of their birth sex. They are then administered sex steroids to enable body changes consistent with their cross-sex identity (de Vries et al., 2010). For the small number of patients who conclude that developing along the lines expected by birth sex is preferable, GnRH analogues can be discontinued, and pubertal development as typical of their natal sex resumes (Hembree et al., 2009). On the other hand, if gender transition is desired, GnRH analogues are continued during cross-sex steroid treatment prior to gonadectomy.

In the most experienced treatment center in the Netherlands, GnRH analogues are prescribed shortly after the onset of puberty (Tanner stage 2–3). Triptorelin is administered in a dose of 3.75 mg every 4 weeks. At the introduction of treatment, an extra dose is given at 2 weeks. Gonadotrophins are suppressed after a brief period of stimulation (Delemarre-van de Waal & Cohen-Kettenis, 2006). Feminizing/masculinizing endocrine therapy in that center can begin at 16 years with recommendation of the mental health professional who has engaged with the adolescent for a minimum of 6 months. SRS for continuing GID can be performed at 18 years and must be preceded by a 2 year real life experience of full-time cross-gender living. As a 12 cm height difference is a typical sex difference, it is advantageous to retard the growth of natal males and enhance the growth of natal females. The Endocrine Society Guideline addresses management of this important issue (Hembree et al., 2009). The most extensive series of cases with pubertal suspension is reported from the Netherlands (APA level B, longitudinal follow-up after an intervention). From 2001 to 2009, 118 adolescents were treated (50 natal males and 68 natal females). Mean age was 14.3 years in 2009. None had discontinued pubertal suspension. Behavioral and emotional problems (as measured by the Child Behavior Checklist and Youth Self-Report) and depressive symptoms (as measured by the Beck Depression Inventory) decreased while general functioning (Global Assessment Scale) improved significantly during puberty suppression. Cross-sex hormone treatment had been started with 71, at a mean age of 16.6 years (de Vries et al., 2010).

The experience of the Toronto group to date has been recently published (Zucker et al., 2011). This group examined demographic, behavior problem, and psychosexual measures to see if any of them correlated with the clinical decision to recommend, or not recommend, pubertal suspension in a consecutive series of 109 adolescents (55 females, 54 males) with GID evaluated between 2000 and 2009. Of the 109 adolescents, 66 (60.6 %) were recommended for pubertal suspension and 43 (39.4 %) were not. A combination of five (of 15) demographic, behavior problem, and psychosexual measures were identified in a logistic regression analysis to significantly ($p < .10$) predict this clinical recommendation. The quantitative data were complemented by clinical case descriptions; however, follow-up data were not adequate for statistical comparison of any outcome measures between those for whom pubertal suspension was recommended compared to those for whom they were not. Other centers, in Los Angeles and Boston, have similarly instituted programs of pubertal suspension but have not yet published systematic evaluations of their case series. Because of cost, GnRH analogues are not affordable for many in the U.S. Less expensive alternatives (e.g., spironolactone) may be used in natal males (Hembree et al., 2009).

Issues Regarding the Use of Cross-Sex Hormones

The major issue with respect to use of cross-sex hormones concerns the timing of administration. There are no established criteria for use of cross-sex hormones in adolescents. Generally, however, these are now used following suspension of puberty when it is increasingly clear that the adolescent meets readiness criteria to move towards SRS and is functioning reasonably well psychologically and socially. There are no studies addressing the issue of timing. In the Dutch follow-up study (Cohen-Kettenis & van Goozen, 1997), it was their conclusion that those adolescents who transitioned earlier presented a more convincing physical appearance than did those with a later age of transition. This follows logically as there was less development of secondary sex characteristics of the natal sex as indicated above. There are currently inadequate data for development of an evidence based guideline regarding the timing of cross-sex hormone treatment.

Issues Regarding the Timing of SRS

SRS is not generally an issue for adolescent populations in the United States as surgery is normally not performed before the age of 18. However, occasionally surgery has been done during adolescence in other countries. Given the irreversible nature of surgery, most clinicians advise waiting until the individual has attained the age of legal consent and a degree of independence. In some jurisdictions (e.g., UK), there is no fixed legal age of consent to medical procedures. Instead, a comprehensive understanding of the procedure, with options, risks, and benefits must be demonstrated by the patient (Smith et al., 2001). At present, there is inadequate evidence to develop a guideline regarding the timing of SRS although medical advice is important with respect to removal of ovaries within a reasonable time after use of cross-sex hormones due to potentially increased malignant potential (Hembree et al., 2009).

GV in Adults

A. Evan Eyler, M.D., M.P.H., D. Andrew Tompkins, M.D., and Eli Coleman, Ph.D.

Here we address the care of transgender and other gender variant adults from the perspective of the practicing psychiatrist. First, the principal concerns of these individuals in a clinical context are described. Psychiatric assessment, treatment options and the processes employed in clinical decision making are discussed. The quality of evidence currently available to guide the selection of practice options and to support treatment recommendations is then evaluated using the APA coding system. The professional literature regarding treatment of adults with GID/GV is more extensive than the literature regarding the treatment of children or adolescents. This section of the report is, therefore, correspondingly longer than those sections.

Gender Identity Concerns in Adulthood

GV is sufficiently common that even adult psychiatrists whose practice does not focus on transgender care encounter patients who are transitioning gender, or contemplating gender transition. Gender variant persons choose different means to express the gendered self authentically or to attain relief of psychological distress due to lack of congruence between the psychological and socially-presented selves, or between physical characteristics and gender identity. Many seek both hormonal and surgical transition; however, some seek hormonal treatment but do not feel the need for any, or particular (e.g., genital) surgical procedures. Others may choose surgical but not hormonal treatments. Mental health services may be sought for many reasons, including a desire for professional assistance with exploring gender identity, or to gain comfort with the gendered self or preferred gender presentation. Some also seek counseling regarding the decision of whether or not to transition publicly, and, if so, to what extent. Additional concerns include preparing to initiate hormonal treatment; monitoring psychological functioning as the physical effects of the administered hormones become apparent; choosing whether or not to undergo various surgical procedures, such as breast, genital, or facial modifying surgeries; and adjusting to post-transition living in the preferred gender presentation. Psychiatrists who treat transgender adults may also be called upon to assist their patients with the legal and financial concerns associated with gender transition in the current social system. These include coding and payment of insurance claims for mental health and other medical services related to transgender care; management of identity documentation during and after transition; the treatment of transgender and transitioning persons in the military and in incarceration settings; discrimination based on gender identity or gender presentation, and many others.

Adults who conclude that transition is the best solution to the psychological discomfort they experience face different challenges than children and adolescents with strong cross-gender identification. Some individuals who publicly transition in adulthood have been aware of a sense of gender incongruence since childhood or adolescence, but have adopted a social presentation that is at least somewhat conforming to gender expectations. This may have occurred (consciously or unconsciously) in order to reduce the level of difficulty encountered in settings such as education, employment and partnered relationships (Bockting & Coleman, 2007). They may take the risks inherent in transitioning publicly when they are older and have more autonomy, or when they are naturally going through stages of individuation. Concerns regarding transgender awareness or transition may emerge during the course of treatment of some other presenting complaint. For example, some transgender adults initially seek treatment for depression, substance abuse, or other clinical problems that have developed in the context of chronic suppression, or repression, of feelings related to GV. Initial disclosure, particularly in a clinical setting, is usually a time of high emotional vulnerability for the person sharing this confidence with the psychiatrist or other professional (Bockting, Knudson, & Goldberg, 2007) and requires knowledgeable and empathic management.

Acknowledging the awareness of cross-gender identification to oneself and to others, and integrating this awareness into one's identity, is sometimes referred to as "coming out transgender" or "coming out trans." This has been described as a multi-stage process by mental health professionals with extensive clinical experience with transgender phenomena, as well as on the basis of observational or qualitative research (Bockting et al., 2007; Devor, 2004; Gagne, Tewksbury, & McGaughey, 1997; Lev, 2004; Lewins, 1995). These observations suggest a process somewhat analogous to that proposed for identity development among gay men (Cass, 1979; Coleman, 1981; Troiden, 1988, 1989), lesbian women (Diamond, 1998; Parks, 1999), and bisexuals (Savin-Williams, 1995; Weinberg, Williams, & Pryor, 1994). Though particular stages or milestones may be recognized in the process of coming out, they do not necessarily progress in the same sequence in all individuals (Troiden, 1993). Persons who come out as transgender, or who transition during the adult years, are usually in the position of balancing the drive to live in a more authentic gender presentation with the needs created by years of living a more gender conforming public and private life.

Transition Goals and Outcomes

The process of integration of transgender identity may also demonstrate substantial complexity due to the variation in outcome that individuals seek. For example, some never publicly transition gender, while some may delay openly transitioning for a variety of reasons, such as concern about the impact of disclosing the transgender identity on employment or child custody arrangements. These individuals may, nevertheless, utilize hormonal treatments to facilitate presentation in the psychological (trans)gender in private settings–sometimes for years prior to public transition.

Others find that their best sense of psychological relief and self-comfort is obtained through adopting a combination of social gender signifiers, with or without reinforcing medical treatments, to facilitate private reinforcement, though not public recognition, of the transgender identity. For example, an older male whose gender identity is female, may spend his leisure time at a club frequented by transgendered individuals, dressed as a woman, but may continue to present as male in his retirement community. He may also take a small dose of estrogen for psychological relief, even if this does not result in full physical feminization.

The range of transition goals sought has also evolved over time. Among the male-to-female (MTF) transsexual adults in Lewins' (1995) qualitative work, the final stage of transition was described as "invisibility," i.e., assimilation into the general female population. Such "invisibility," however, is not currently a desired outcome for many transgender individuals and other gender variant adults. As transgender people and groups have become more visible in society, and have gained a measure of relative acceptance, the possibility of a transgender identity as such, rather than as a transitional stage within a male–female divided social system, has become a more realistic option. The film, *Coming Out Trans* (Bockting & Kimberly, 2008), provides some first person accounts in that regard. Some individuals do hope to fully assimilate as women or as men; however, others find authenticity in presenting a blend of gendered characteristics, or of fully transitioning gender while continuing to value the earlier life experience in the other gender role, such as by maintaining interests and activities developed during the pre-transition years. The process of integration of the transgender identity can also continue after the completion of surgical transformation of the body.

The possibility of stopping the process of gender transition prior to completion, or of reversing some of the physical changes that have been attained, has gained more acceptance in recent years. Some individuals find that a measure of bodily change, without genital surgery, clarifies their understanding of their gender identity and desired gender presentation. For example, some adults who begin FTM transition discontinue androgen use after some physical masculinization has been achieved, finding that a masculine female (butch) identity is more authentically representative of the self than living as a man. Some adults who initially present with transgender concerns decide, during the process of psychotherapy, not to proceed with any form of public gender transition (Smith et al., 2005a). This can be a reasonable outcome to an exploratory psychotherapy, but elimination or "correction" of transgender identity is no longer considered a reasonable therapeutic goal. Pfäfflin (1992) (see also Pfäfflin & Junge, 1990, 1998) for example, describes the evolution in treatment of gender dysphoria from historic psychoanalytic approaches aimed at achieving gender congruence through resolution of presumed intrapsychic conflict, to a contemporary model of offering psychotherapy or mental health evaluations that are often followed by hormonal treatments and surgeries.

Diagnostic and Mental Health Needs Assessment

Adults desiring hormonal or surgical treatments in the process of transitioning gender sometimes initially seek psychotherapy to clarify their gender identity and personal goals. Some individuals present directly to a surgeon, endocrinologist or other prescribing clinician, and are referred for mental health consultation prior to initiation of hormone therapy or preparation for surgery. Exploration of the gender identity, assessment of realistic understanding of transition treatments and outcomes, and detection and treatment of any co-occurring psychiatric pathology are some of the usual goals of this process. At least brief (several months) participation in psychotherapy is recommended in many clinical settings, in order to allow sufficient time for this work to unfold prior to initiating physical treatments that produce effects that are not fully reversible. Mental health evaluation and treatment, and the medical transition treatments that may follow, are discussed in more detail below.

Psychotherapy and Mental Health Support

The skills used by mental health professionals in caring for adults who are in the process of transgender coming out are similar to those used in other clinical situations in which concerns regarding personal identity, individuation versus conformity, or adaptation to minority identification within non-affirming majority culture are involved. Decisions such as whether and when to transition publicly, whether hormonal and surgical treatments will be needed or whether some other accommodation can be reached; if, when and how to come out regarding the transgender identity or history; and how to manage the concerns associated with family, employment and education, etc. are best addressed in a supportive clinical environment, at the pace that is acceptable to the transgender individual, and in some cases, couple.

Most of the literature addressing psychotherapy with gender variant adults is descriptive in nature; case reports, review articles based on practice experience, theoretical schemas based on clinical observation or qualitative work. The vast majority would be categorized as APA levels F and G. The lack of more statistically robust forms of evidence, such as RCTs, is representative of the history of this aspect of clinical practice, and the fact that psychotherapy is often (though not always) followed by hormonal or surgical treatments. The relatively low, and apparently declining, rate of regret following gender reassignment surgery (as discussed below) in a number of studies is believed to reflect the overall effectiveness of current treatment of gender dysphoria, including psychotherapy aimed at clarifying the social and physical changes needed to achieve comfort with the gendered self. The available literature (Green & Fleming, 1990; Michel, Ansseau, Legros, Pitchot, & Mormont, 2002; Pfäfflin & Junge, 1998) suggests that adequate pre-surgical psychotherapy is predictive of good post-surgical outcomes.

Bockting et al. (2007) offer fairly comprehensive recommendations for assessment and treatment of gender concerns, concurrent mental health difficulties, and elements of general counseling that are transgender specific. Their recommendations are based on a model of "transgender–affirmative approach, client-centered care, and harm reduction." Based on the available literature, it would not be possible to recommend one particular style of psychotherapy over another for working with patients who are transgender; however, it is possible to identify the issues that therapy should address. These include concerns related to gender identity, gender expression and sexuality; social functioning and support; personal goals for public and private life, and related matters. Reasonable understanding of the effects of contemplated medical treatments and ability to adhere to a therapeutic regimen also should be assessed (Bockting et al., 2007; Meyer et al., 2001) consistent with usual principles of decision-making capacity and informed consent. Assessment of co-occurring mental illness, particularly psychopathology that may influence the transgender presentation or that may be mistaken for transgender (e.g., Skoptic syndrome, in which a person is preoccupied with or engages in genital self-mutilation, such as castration, penectomy or clitoridectomy) and psychotic disorders, etc., is paramount (Hembree et al., 2009; Roberts, Brett, Johnson, & Wassersug, 2008).

Adults with gender identity concerns have also often experienced stigmatization or victimization related to gender variant appearance or behavior, or on the basis of actual or presumed sexual orientation as documented in the Report of the National Transgender Discrimination Survey (Grant et al., 2011). In fact, some authors have concluded that such stigmatization largely accounts for mental illness among individuals with GID (Nuttbrock et al., 2010). The American Psychological Association's Task Force on Gender Identity and GV concludes that "…there is adequate research concerning discrimination and stereotyping to support the development of clinical guidelines addressing these areas specifically." As with clinical work with individuals who are lesbian, gay or bisexual identified, an open-minded and nonjudgmental psychotherapy approach that affirms the autonomy and lived experience of the individual is a fundamental part of psychiatric care of gender variant adults.

Medical Aspects of Gender Transition and Their Mental Health Implications

Mental health professionals who work with individuals who plan to transition using hormonal or surgical treatments, or who are in the process of doing so, need to be knowledgeable about these procedures and their mental health implications. These are, therefore, briefly reviewed here. Some individuals who transition, either FTM or MTF, do so without hormonal therapy. Some seek mental health services while clarifying the decision to do so, and others do not find this necessary or feasible.

FTM transition usually includes use of androgens, which produce (or enhance) male secondary sex characteristics, such as beard growth and male distribution of body hair, deepening of the voice, and often mild coarsening of the facial features and skin. Androgen supplementation also causes enlargement of the clitoris, often to the extent that metaoidoplasty (one form of masculinizing genital surgery, discussed below) becomes feasible. MTF transition often consists of both estrogen supplementation and reduction in circulating androgens through use of anti-androgen agents, such as spironolactone or cyproterone (Hembree et al., 2009). Estrogen effects include breast development and mild feminizing changes to skin and hair, though for many who transition MTF after completion of male pubertal development, depilation will be needed. Many also need surgical reduction of the laryngeal cartilage or feminizing facial surgeries. Use of hormonal preparations is much more effective in "adding" physical characteristics than in "subtracting" those that have already developed with natural puberty. Body habitus, including both fat distribution and potential for muscular development, is altered by use of cross-sex hormones. Utilization of either androgens or estrogens carries with it potential for both added health risks and, in some cases, physiologic benefits. The technical aspects of transgender hormonal treatment are discussed elsewhere (Delemarre-van de Waal & Cohen-Kettenis, 2006; Hembree et al., 2009; Moore, Wisniewski, & Dobs, 2003) as is the associated general medical and preventive care (Eyler, 2007; Feldman, 2007, 2008).

Emotional changes may occur with use of either androgen or estrogen supplementation, though these are often relatively subtle and consistent with the pre-transition personality (Eyler, 2007). Increase in libido usually occurs with androgen use (Hembree et al., 2009), though some individuals transitioning as MTF also experience a stronger interest in sex, perhaps due to the affirming aspects of attaining the bodily changes that have been desired for years, such as development of female breasts (Eyler, 2007). Individuals in transition often benefit from ongoing psychiatric care (Rehman, Lazer, Benet, Schaefer, & Melman, 1999). In addition to the psychotherapeutic work involved when individuals choose major life-changing experiences fueled by ongoing distress, monitoring the psychiatric effects of hormone use, along with the prescribing internist, family physician, gynecologist or endocrinologist, is advisable. For example, if excessive lability is noted, such as moodiness, weepiness or aggression (similar to the "steroid rage" that can accompany use of anabolic steroids by competitive male athletes and body builders), checking serum levels of circulating hormones is indicated (Eyler, 2007). Safer sex information, and instruction in self-protective negotiation in sexual settings, is often provided by the psychiatrist or other mental health professional if this has not been done by the prescribing clinician. It is important that this information be tailored to the needs and experiences of transgender persons (Eyler & Feldman, 2008; Feldman, 2007).

Surgeries for purposes of gender transition include breast and chest ("top") surgeries and genital ("bottom") procedures. It is believed that most adults who transition from FTM have chest reconstruction surgery, because the visible contours of female breasts are such a powerful social cue and aspect of gender presentation as a woman, whereas a flatter chest facilitates presentation as a man (Monstrey, Vercruysse, & De Cuypere, 2009).Some individuals may not require breast surgery if the body habitus is more masculine. The goal of FTM top surgery is not mastectomy, as would be performed for treatment of carcinoma of the breast, but creation of a natural appearing male chest, such that some of the subcutaneous fat is retained, in proportion to the general body habitus of the individual. Some adults who transition MTF have breast augmentation surgery due to achieving minimal breast development with hormonal treatment alone, though others develop fully morphologically normal female breasts with estrogen, and sometimes progestin, use. Some also choose breast augmentation due to dissatisfaction with the level of breast development achieved, similar to some non-transsexual women.

Many adults undergoing MTF genital surgery receive penile inversion vaginoplasty with clitoroplasty, labiaplasty, and orchiectomy. FTM genial surgery can consist of either metaiodoplasty with limited scrotoplasty, or more extensive surgery, including phalloplasty with grafted tissue from another body site, urethral extension, scrotoplasty and vaginectomy. Hysterectomy and oophorectomy are performed in either case. Information regarding the rationale for surgery (Monstrey, De Cuypere, & Ettner, 2007b), as well as current information regarding specific techniques (Monstrey, Ceulemans, & Hoebeke, 2007a; Monstrey et al., 2007b), is readily available to patients and professionals in a variety of sources, including professional sources, the popular press and the internet; however, comparative outcome data among the providers and techniques are not similarly available.

Review of Literature with Respect to Support for Treatment Recommendations

Prior to considering whether the current literature provides sufficient evidence to support treatment recommendations by the APA, it is necessary to define what constitutes successful treatment and to determine the quality of evidence that compares treatment options in terms of outcome. These issues will be discussed in turn.

Outcome Criteria

The definition of treatment success is complex, because gender identity and gender dysphoria, as well as any perceived benefit of treatment of gender dysphoria are subjective experiences. Individuals seeking gender transition may also experience psychiatric symptoms or disorders that are unrelated to the gender identity concern, or that may have developed as a response to the distress of the gender dysphoria (e.g., addictive disorders) and require specific treatment.

DSM-IV-TR criterion D for GID states that "[t]he disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning." From this perspective, treatment can be considered successful if it relieves this distress or facilitates improvement in function in some substantive way. Some early outcome studies emphasized functional indices such as "job, education, marital, and domiciliary stability" (Meyer & Reter, 1979). However, many persons who present for medical services for transition are already functioning very well socially and occupationally. In these cases, relief of the gender dysphoria, satisfaction with treatment, and lack of regret regarding the decision to transition represent the primary measurable outcomes. (Among patients who experience some level of functional impairment, these may still be most important.) Some clinical situations are complex. For example, an individual with high levels of personality pathology and gender dysphoria may experience substantial emotional relief with transition, and yet remain disabled from employment by the co-existing psychiatric illness.

The importance of subjective satisfaction as opposed to regret on the part of the patient has gained emphasis in the literature during the last two decades (Carroll, 1999; Green & Fleming, 1990; Kuiper & Cohen-Kettenis, 1988; Lawrence, 2003; Snaith, Tarsh, & Reid, 1993). This may reflect a combination of factors, including a relaxation of prevailing biases regarding gender and sexual orientation, a greater commitment to patient autonomy in mental health and general medical services, and the emergence of transgender and gender variant persons as a recognizable political group with reasonable claims to civil rights and responsibilities, rather than a population regarded primarily as patients and clients. Cole et al. (2000) noted that treatment of gender dysphoria during the early and mid-twentieth century was based on prevailing gender stereotypes: "Transsexualism itself was considered a liminal state, a transitory phase, to be negotiated as rapidly as possible on one's way to becoming a 'normal' man or 'normal' woman." This viewpoint has gradually evolved to accommodate a greater variety of transgender experiences, and recognition of the importance of subjective outcomes as opposed to the ability to conform to majority cultural expectations. Kuiper and Cohen-Kettenis (1998) concluded, "…an evaluation of SRS can be made only on the basis of subjective data, because SRS is intended to solve a problem that cannot be determined objectively."

Evidence Regarding Effectiveness of Treatment for Gender Dysphoria in Adults

Satisfaction Versus Regret Pfäfflin and Junge (1998) reviewed the 79 available follow-up studies regarding gender transition treatment conducted between 1961 and 1991, including a total of more than 1000 MTF patients and more than 400 FTM patients. Although a variety of outcome criteria were used, when the key subjective criteria (such as general satisfaction and lack of regret) were examined, results were supportive of treatment as a means of relieving psychological distress. Most of the studies reviewed were case series, case reports or reviews (APA level D or lower) though some included sufficient longitudinal follow up and standardization to meet APA level C or B. "Big" regrets (such as reversion to the original gender role, rather than some lesser degree of regret or ambivalence) were estimated to have occurred in only 1–1.5 % of patients. Other sizeable reviews (of numerous smaller studies, APA level F) also suggested hormonal and surgical treatments as successful therapies for gender dysphoria (Cohen-Kettenis & Gooren, 1999; De Cuypere & Vercruysse, 2009). Interpretation of these findings is limited by the analysis of nonrandom samples based on recruitment and/or response rate. One study avoided these problems by using German registry data to assess reversal of name changes following reassignment as a measure of regret (Weitze & Osburg, 1996). Only one person of 733 who applied for legal change of sex between 1981 and 1990 subsequently applied for reversal, suggesting profound regret; 57 (0.4 %) of 1,422 adults who obtained gendered changes of first name requested a second legal name change, suggesting at least some degree of regret. Though this indirect approach (APA level G) does not provide robust evidence, the results are consistent with other approaches. A recent systematic review and meta-analysis reported that 80 % experienced subjective improvement in terms of gender dysphoria and other psychological symptoms and quality of life (Murad et al., 2010).

Some relatively long-term follow up data (APA level B) are available, though sample sizes are generally modest. Smith and collaborators evaluated 162 Dutch adolescent and adult patients who were eligible for gender transition services based on "gender dysphoria, psychological stability, and physical appearance" after completion of treatment. Approximately half of the original consecutive applicants for sex reassignment completed hormonal and surgical transition (Smith et al., 2005b). Two patients had regrets; most others experienced relief of gender dysphoria and were found to be functioning well "psychologically, socially and sexually." Johansson, Sundbom, Hojerback, and Bodlund (2010) followed 42 MTF adults and 17 FTM adults, who met diagnostic criteria for GID and were accepted into treatment in a transgender treatment program, for 5 years or longer. At the time of publication, 32 had received genital reassignment surgery, 5 were anticipating surgery, and 5 had decided not to proceed. No one regretted his or her decision; 95 % of participants rated their global outcome as favorable, though only 62 % of the clinician assessments concurred. There were no differences between subgroups. Conversely, Kuhn et al. (2009) used the King's Health Questionnaire and Visual Analogue Scale to measure quality of life in 52 MTF adults and 3 FTMs, recruited from a Swiss tertiary medical center gender program. All subjects were 15 or more years post-gender reassignment surgery. Overall quality of life and life satisfaction levels were lower than matched controls, particularly in the domains of general health, role limitation, physical limitation, and personal limitation. However, the control group was chosen from the "healthy female medical staff with at least one previous abdominal or pelvic operation," rather than from a more appropriate sample, such as transgender adults who did not receive surgery. The quality of life assessments are, therefore, likely to be valid in absolute terms, but the question of whether the participants' quality of life was improved by transition (relative to having not transitioned) remains unresolved. Similarly, a recent population-based matched cohort study (APA level D) compared 191 MTF subjects and 133 FTM subjects with random controls matched by birth year and natal sex, as well as by birth year and reassigned sex (Dhejne et al., 2011). The transsexual subjects had received SRS in Sweden between the years 1973–2003. Although higher risks for psychiatric morbidity, suicidal behavior, and mortality were found in the transsexual groups, relative to non-transsexual controls, no comparison was made to transsexual persons who did not receive treatment. As with the Kuhn et al. (2009) study, questions regarding the magnitude of improvement in quality of life attributable to gender transition and SRS were not addressed, though the authors noted that the gender dysphoria had been alleviated.

Correlates of Satisfaction and Regret Much of the research literature that employs an outcome perspective has focused on identifying correlates of treatment satisfaction and lack of regret among persons seeking transition with hormonal and surgical treatments, particularly those who transition from MTF. In theory, these data could be used in the formulation of treatment recommendations, to assist clinicians in identifying individuals who are most likely to benefit from hormonal and surgical treatments as well as those most likely to have post-treatment regrets. Particularly controversial in this research, MTF psychological and social characteristics have often been dichotomized by the typology of "early onset/androphilic" versus "late onset/gynephilic" transsexual adults. Lawrence (2003) summarizes this distinction as follows:

> Many researchers have proposed that there are two types of MTF transsexuals. One category includes persons who typically transition at a younger age, report more sexual attraction to and sexual experience with males, are unlikely to have married or to have become biologic parents, and recall more childhood femininity. The other category includes persons who typically transition at an older age, report more sexual attraction to and sexual experience with females, are more likely to have married and to have become biologic parents, report more past or current sexual arousal to cross-dressing and cross-gender fantasy, and recall less childhood femininity. (p. 300)

Transgender MTF adults with early onset/androphilic characteristics have been more often found to have higher rates of satisfaction with gender transition and fewer regrets (Blanchard et al., 1989; De Cuypere et al., 2006; Muirhead-Allwood et al., 1999). However, Lawrence (2003) notes that the population of persons applying for gender transition surgeries has undergone a demographic shift, particularly in the United States and Canada. For example, at the Clarke Institute of Psychiatry in Toronto, the percentage of MTF adults seeking SRS who were "nonhomosexual relative to biologic sex," increased from 25 % (Freund, Steiner, & Chan, 1982) to 59 % (Blanchard & Sheridan, 1992) in a single decade. In a related phenomenon, the average age of MTF transgender adults presenting for gender reassignment services in

Sweden increased by 8 years during two decades (Olsson & Moller, 2003). Younger age at the time of transition had previously been found to correlate with both androphilia and better outcome satisfaction. However, rates of regret following surgery have decreased during this time, as discussed below, suggesting the possibility that co-occurring social changes, or other factors, have eroded the strength of these previously somewhat predictive relationships.

Interviews with subjects who express substantial regret following genital reassignment surgery, and related case reviews, have identified several correlates of regret. These include: inadequate diagnosis of major comorbidity (e.g., psychosis, personality disorder, alcohol dependency), misdiagnosis, absence of or a disappointing real-life experience, and poor family support (Botzer & Vehrs, 1995; Bodlund & Kullgren, 1996; De Cuypere & Vercruysse, 2009; Eldh et al., 1997; Gijs & Brewaeys, 2007; Kuiper & Cohen-Kettenis, 1998; Landen et al., 1998; Lundstrom et al., 1984; Pfäfflin & Junge, 1998; Walinder et al., 1978). Given the magnitude of the social changes associated with gender transition, these correlates are intuitively appealing, as strong family support and good emotional health are associated with positive adjustment to many other life changes. However, cases have been reported in which the individual was both suffering from severe co-occurring psychopathology, and was a "late-onset, gynephilic" MTF transgender adult, and yet experienced a long-term, positive outcome with hormonal and surgical gender transition (Brown, 2001). Several of the authors of the present TF have also treated patients with severe co-existing psychiatric illness who successfully transitioned gender and experienced improved quality of life. Delaying therapy with hormones or surgery until serious mental health difficulties are addressed may promote adherence to needed psychiatric and other mental health treatment, such that the individual experiences benefit with regard to both the gender dysphoria and the concurrent psychiatric illness. The co-occurrence of serious psychiatric pathology is further discussed below.

The quality of the surgical result, including function and appearance, has also correlated positively with patient satisfaction or other positive outcome measures among both MTF adults (Botzer & Vehrs, 1995; Eldh et al., 1997; Green & Fleming, 1990; Lundstrom et al., 1984; Pfäfflin & Junge, 1998), and FTM adults (Garaffa, Christopher, & Ralph, 2009), though it remains difficult to achieve surgically excellent results with phalloplasty (Leriche et al., 2008) relative to vulvovaginoplasty (Lawrence, 2003). In her anonymous mailed questionnaire study of 232 MTF transsexual adults operated on between 1994 and 2000 by one surgeon using a consistent technique, Lawrence (2003) found poor surgical outcome to be the strongest predictor of regret. Overall, no participants reported "consistent regret" and only 15 (6 %) were "sometimes regretful" (p. 305). Kuiper and Cohen-Kettenis (1998) recommended the use of multidisciplinary teams in order to minimize poor outcomes though lack of complete information or individual clinician bias. Although few systematic studies of suicide among gender transitioning persons have not been conducted, the case report literature suggests that this is a relatively rare outcome (De Cuypere & Vercruysse, 2009). Dhejne et al. found an increased risk of death by suicide, and of suicide attempts, among subjects who had received SRS, relative to age-matched population controls, but also noted that the difference in suicide attempts did not reach statistical significance for the most recent cohort, those who had transitioned gender during 1989–2003.

The majority of the satisfaction/regret outcome studies described above suggests that most subjects experience subjective improvement following gender transition; however, most lacked a control group. Studies assessing correlates of satisfaction through interviews or case reviews would be categorized as APA level G. For some important aspects of transgender care, it would be impossible or unwise to engage in more robust study designs. Due to ethical concerns and lack of volunteer enrollment, for example it would be extremely problematic to include a "long-term placebo treated control group" in an RCT of hormone therapy efficacy among gender variant adults desiring use of hormonal treatments.

Review of the available literature also documents a downward trend in rates of post-surgical regrets over the last three decades. Though satisfaction with transition outcome is believed to be the norm in recent years, earlier studies (Lindemalm, Korlin, & Uddenberg, 1986; Meyer & Reter, 1979) found rates of regret of 30 % or higher, and even in 1997, one study found a 6 % regret rate (Eldh et al., 1997). Reasons for this trend are not completely clear, but it is temporally correlated with fairly widespread adoption of flexible but less idiosyncratic pre-surgical criteria (the WPATH SOC); improved surgical techniques and outcomes, particularly for vulvovaginoplasty, and an improved social climate for members of sexual and gender minorities. This has been suggested as indirect evidence of the utility of the WPATH SOC in pre-surgical evaluation and treatment of gender transitioning patients (De Cuypere & Vercruysse, 2009; Meyer, 2009).

Options and Evidence for Psychiatric Evaluation and Mental Health Care

Adults who make use of conventional medical services for gender transition historically received mental health evaluation prior to beginning this process (Drescher, 2010), unless they had already been living as a member of the psychological (post-transition) gender for a significant period of time (Meyer et al., 2001). The principal area of current clinical controversy with regard to use of hormonal medications by persons in gender transition concerns the nature of, and extent of, preparation for beginning hormonal transition, particularly the mental health evaluation. Options currently in use include the following: extensive mental health evaluation or real life experience prior to beginning treatment with hormonal medications, brief evaluation by a mental health professional prior to hormonal prescription, mental health screening by the prescribing clinician, and prescription without specific evaluation. Additional possibilities, such as the creation of certified "gender specialists" who would assess readiness have been suggested (Lev, 2009).

Evaluation prior to genital surgery is similar but usually more extensive. The basis for each of these approaches is discussed below. This discussion applies only to the treatment of patients who seek medical services through licensed health care facilities in the United States and Canada. Some individuals obtain hormonal preparations without any medical or mental health contact, such as via the internet or veterinary supply. Some travel to other countries to obtain surgical treatments without specific presurgical requirements. Outcome data for treatment obtained through these routes are lacking.

Mental Health Evaluation Options Prior to Hormonal Therapy

Comprehensive Mental Health Evaluation Although some reasonable evidence supporting the clinical effectiveness of hormonal and surgical methods in the treatment of "gender dysphoria" [principally case series by Benjamin, Green, Money, and Stoller (Benjamin, 1967; Green, Newman, & Stoller, 1972; Stoller, 1967, 1973) reviewed in (Green, 1999)] had accumulated by the 1960s, the use of these physical modalities, rather than psychoanalysis or extended psychotherapy aimed at resolving the intrapsychic conflict believed to underlie the transsexualism, and its associated implicit homosexuality, remained controversial and politicized. For example, the first university affiliated transgender program, at Johns Hopkins University, was founded in the 1960s and then disbanded in an ideological sea change in 1979 (though gender identity concerns subsequently became part of the scope of practice of the Johns Hopkins Sexual Behaviors Consultation Unit). Psychiatrists and psychologists approached individuals seeking medical services for gender transition idiosyncratically, without consistency in regard to recommending, or attempting to dissuade the use of, hormonal and surgical treatments. Several recent reviews and policy papers (Drescher, 2010; Lev, 2009; Meyer-Bahlburg, 2009; Zucker, 2010) have described the intertwined clinical and political difficulties that existed in that era.

The Harry Benjamin International Gender Dysphoria Association (HBIGDA) was founded in 1979, to address the need for professional guidance in treating individuals with GID. SOC were developed by an international consensus panel, initially for the purpose of providing some protection to patients and their treating physicians (Meyer et al., 2001). These have been subsequently revised at intervals, with a seventh revision in process at the time of this writing. HBIGDA has been re-named, and is now the WPATH.

The current, sixth version (Meyer et al., 2001) of the WPATH SOC recommends evaluation by a psychiatrist, psychologist, clinical social worker, or other master's or doctoral level mental health clinician, prior to beginning treatment with hormonal medications. Areas of emphasis include identifying and beginning treatment of any pathology that may exist concurrent with the transition, and assessing readiness for hormonal treatment based on consolidation of the gender identity and demonstration of general psychiatric stability, sufficient to withstand the social or medical complications that may ensue during the physical transition process. Adults seeking treatment with hormonal medications should also have either engaged in psychotherapy (usually for 3 months or longer) or have engaged in a documented period of having lived in the psychological gender (a "real life experience") for at least 3 months. In addition, patients should experience further consolidation of the gender identity during this time, and make progress with regard to any ongoing mental health problems, such as substance abuse. They should also be considered likely to "take hormones in a responsible manner (p. 14)." In other words, the use of hormonal medications is regarded as part of an ongoing process of physical and psychosocial transition, undertaken with informed consent, in the context of mental health and general medical care.

The WPATH SOC recommends different levels of preparation for breast and genital surgeries. FTM breast surgery may be obtained at the time of beginning hormonal treatment, as the breast morphology will be minimally affected by use of testosterone, and because FTM chest reconstruction may be necessary for social presentation as a male. MTF individuals should defer breast augmentation surgery until after at least 18 months of treatment with feminizing hormones, in order to reduce the likelihood of unnecessary procedures. WPATH Standards for preparation for genital surgery are more comprehensive than those addressing hormonal treatment eligibility and readiness, and the time course is longer: 12 months of hormonal therapy unless this is medically contraindicated, and 12 months of real life experience. The current WPATH SOC (version 6) require documentation of a GID diagnosis and recommendation for surgery by two mental health professionals, at least one of whom must be a psychiatrist or doctoral level psychologist.

The Oxford Centre for Evidence-Based Medicine Level of Evidence system has been used to evaluate the evidence regarding the key components of the WPATH SOC for SRS, described as eligibility and readiness criteria (e.g., pre-treatment psychotherapy, real life experience, sequence of transition steps), as predictors of favorable post-surgical outcome (De Cuypere & Vercruysse, 2009). Overall evidence supported these components; however, the level of evidence was generally low, mostly corresponding to APA level D and lower. Some studies, however, (De Cuypere et al., 2006; Pfäfflin & Junge, 1990; Smith et al., 2005a), that tracked patients longitudinally after intervention could be categorized as APA level B. The evidence in support of gender reassignment surgery, as an "effective and medically indicated" treatment in cases of "severe GID" was similarly evaluated (Monstrey et al., 2009). Results were not uniformly supportive of surgical transition, but reports of post-surgical regret have become much less common over time; studies published since the late 1990s have been more consistently positive. Due to the lack of RCTs or large, well-designed follow-up studies most evidence is estimated to be at or below APA level C. Outcome measures varied across the studies reviewed, but were largely based on satisfaction and similar subjective measures.

In 2009, a consensus group of European and American endocrinological professional societies produced an evidence based practice guideline (Hembree et al., 2009) based on extensive literature review using the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) system (Atkins et al., 2004). Strong recommendations (based on GRADE criteria) were made regarding the involvement of mental health professionals in gender transition treatment, including that the diagnosis of GID be made by a mental health professional and that the endocrinologist and mental health professional agree on the advisability of surgical reassignment prior to surgery. The type of mental health professional was not specified. The Endocrine guideline notes that mental health professionals usually adhere to the WPATH SOC (Hembree et al., 2009).

Some other clinical guidelines, such as the Vancouver Transgender Health Program/Vancouver Coastal Health (Dahl et al., 2006) also recommend full psychological, and/or psychiatric, mental health evaluation before genital surgery. Although many, perhaps most, adults who seek transgender hormonal transition or surgical procedures may have sufficient mental and emotional well-being to manage the associated physical and experiential impacts, the smaller number who do not may be spared devastating outcomes through timely (especially pre-surgical) evaluation and treatment of co-existing psychiatric illness.

The mental health evaluation component of these guidelines is included in an effort to promote good transition outcomes through management of the psychological stress of the transition process and any accompanying Axis I or II disorders, rather than simply through assuring accurate diagnosis of the GID as such. In some cases, gender concerns or preoccupations are a manifestation of other intrapsychic conflicts (e.g., a male sex offender who covertly desires castration) or epiphenomena of other illnesses (e.g., bipolar mania or psychosis with delusional beliefs about gender). A recent Dutch study found that mental health professionals most valued consultation that provided guidance in distinguishing between transgender with concurrent psychiatric illness and psychopathology manifesting features that could be confused with GID (Campo et al., 2001, 2003). Similarly, a British psychiatrist was sanctioned by the General Medical Council for prescribing hormonal medications and recommending surgeries based on insufficient evaluation, in cases such as those described above, to the detriment of the patient; in effect, for failing to follow the WPATH SOC current at the time (Dyer, 2006, 2007).

Although clinical guidelines that restrict access to hormonal or surgical treatments may reflect a variety of implicit assumptions regarding the experience of persons who transition gender, one important basis for their development has been the finding that, although GV is not in itself evidence of medical or psychiatric pathology, neither is it protective from concurrent psychiatric illness (Cole, O'Boyle, Emory, & Meyer, 1997; Hepp, Kraemer, Schnyder, Miller, & Delsignore, 2005; Kersting et al., 2003; Wallien, Swaab, & Cohen-Kettenis, 2007). Further, Meyer (2009) notes that although some clinicians have observed that proceeding with transition planning can sometimes alleviate other Axis I related symptoms (Cole et al., 1997; Kuiper & Cohen-Kettenis, 1998; Landen et al., 1998; Olsson & Moller, 2003; Pfäfflin & Junge, 1998), others have reported lower likelihood of good long-term outcome (e.g., poor adjustment or regret) when concurrent disorders are present. It is probable that both findings have validity. Gender transition can foster social adjustment, improve self-esteem, and relieve the anxiety and mood symptoms that can accompany gender dysphoria, but significant co-occurring mental illness can mitigate against positive outcomes of any medical treatment, whether or not it is related to gender identity. Bockting et al. (2007) provide an approach to consultation regarding gender transition, including a list of co-occurring factors that should be specifically evaluated, such as associated obsessive–compulsive features, delusions about sex or gender, dissociation, personality disorders, Asperger's disorder and internalized homophobia. Their approach has substantial face validity and is consistent with general principles of psychiatric diagnosis, although it is supported primarily by low levels of evidence (generally level D and below).

Other Options Prior to Initiating Hormones Although the WPATH SOC have been utilized in clinical practice with gender transitioning persons in a variety of geographic areas and settings, their implementation presupposes significant resources on the part of the individual seeking transition. Many people who seek hormonal treatment have neither the funds to obtain a psychiatric evaluation and 3 months of psychotherapy nor insurance coverage of mental health services. However, both estrogens and androgens are available via the internet, over the counter in Mexico and other countries, without prescription in certain settings (e.g., testosterone preparations at some gyms), and through veterinary supply. Individuals who lack financial resources, or who do not wish to participate in usual medical and mental health care for other reasons, therefore, have the option of self-treatment with informally obtained hormone preparations. This entails significant medical risk. Potential problems include needle sharing (Sebastian, 1999) as well as administration of inappropriately high hormone dosages together with lack of monitoring for deleterious hormonal effects (Lawrence, 2007). Despite the apparent widespread use of nonprescribed hormonal preparations (reviewed by Lawrence, 2007), there is currently little information available concerning complications of this practice given that it occurs outside of the medical setting. Some clinicians and practices have adopted a harm reduction model of hormonal care for gender transitioning persons, consisting of hormone prescription and basic laboratory services with few additional treatment requirements on the part of the patient.

The Protocols for Hormonal Reassignment of Gender of the Tom Waddell Health Center (TWHC) note that "[t]here exists a large group of individuals self-identified as transgenders who are at high risk for HIV transmission, are homeless or nearly homeless, and who are in need of general primary care services. This group has historically been averse to accessing medical services for a number of reasons…" (Tom Waddell Transgender Team, 2006). The decision regarding hormone prescription is, therefore, left to the individual physician or nurse practitioner, based on psychosocial evaluation, physical examination, and informed consent. However, psychiatric evaluation is required for adolescents, with family participation unless the youth is legally emancipated. Although specific data regarding measurable aspects of treatment success from this approach have not been published, the authors of the TWHC protocol documentation (2006) note that their center has treated nearly 1,200 patients, with over 400 in active medical care. Most practices that use similar treatment approaches are located in urban centers with substantial populations of high risk transgender adults and youth. Evidence regarding the effectiveness of these approaches is currently lacking with regard to treatment of gender dysphoria, though the harm reduction basis is similar to other evidence-based public health programs aimed at reducing HIV risk.

In some settings, psychiatric or psychological evaluation is not required prior to initiation of hormonal therapies, if the prescribing clinician is able to assume responsibility for the associated aspects of mental health care. For example, in the Transgender Health Program of Vancouver Coastal Health (Dahl et al., 2006) primary care providers, including family physicians and nurse practitioners, may choose to have sole responsibility for evaluating eligibility and readiness for hormone therapy, and for initiating and monitoring this treatment, if their clinical expertise and practice structure support this level of involvement. (In this protocol, nurse practitioners may prescribe estrogens but not androgens.) However, the British Columbia Medical Services Plan will not approve applications for transgender surgical coverage unless this is recommended by two psychiatrists or one psychiatrist and one Ph.D. psychologist, all of whom must be registered with the Plan (Bockting et al., 2007). Evidence regarding the efficacy of this approach is not available, though the pre-surgical criteria are similar to the WPATH SOC in some respects.

Some practices employ a modified treatment protocol, such as a medical evaluation with hormone prescription, followed by a later visit with a mental health provider, for at least some transgender patient groups. In New York City, the Callen-Lorde Community Health Center treatment protocol for hormone therapy for "men of transgender experience, hormone experienced" provides an example in that regard (Callen-Lorde Community Health Center Transgender Health Program Protocols, unpublished, 2009). Other physicians informally waive any requirement for mental health evaluation if the individual has already been using hormonal medications for a substantial length of time, even if they were obtained without prescription. Some clinicians place a very high emphasis on patient autonomy, and provide hormone prescriptions on patient request, unless a strong medical contraindication is present. This is consistent with the principles articulated by the International Conference on Transgender Law and Employment Policy, Inc. (ICTLEP) (International Conference on Transgender Law and Employment Policy, 1997). No studies comparing treatment guided by these different policies have been carried out with respect to any outcome measure.

Fraser (2009) has recommended expanded use of the internet for education and psychotherapy for transgender persons, and for clinician training in transgender mental health care. The creation of "gender specialists" among masters and doctoral level clinicians has been suggested by Lev (2009). Although the gender specialist was conceptualized as having a supportive/informed consent role, rather than acting as a "gatekeeper," letters of recommendation would be required prior to the initiation of hormonal and surgical treatments. Thus, the distinction between this role and that of gatekeeper is subtle. Evaluation by a mental health professional would still be required prior to receiving desired medical treatments. Although the informal use of the term "gender specialist" appears to be increasing among some mental-health practitioners, formalization seems unlikely in the near future given the absence of consensus regarding formal training requirements, training institutions and licensing bodies. The Task Force does not support development of specific gender specialist criteria or certification as this might inadvertently create restrictions for mental health professionals already working with patients with GV/GID.

Mental Health Evaluation Prior to Surgical Care At the time of this writing, many surgeons performing genital gender reassignment surgery in the United States utilize the WPATH SOC (version 6) as part of the pre-operative evaluation, though these are neither mandatory nor universally accepted, and some surgeons select patients through other means. In some other countries, surgical eligibility criteria are even more stringent than the WPATH SOC, such as the requirement by the British Columbia Medical Services Plan that both evaluating clinicians be of doctoral level and approved by the Plan, and at least one a psychiatrist. Waiver of the mental health evaluation has been recommended as a matter of policy (ICTLEP, 1997) or on ethical grounds (Hale, 2007) but it is not clear that either of these arguments has gained extensive support within the surgical community. No direct evidence is available to address the safety and efficacy of evaluation for suitability for surgery by the surgeon, without the assistance of mental health professionals, though Lawrence's (2003) work is somewhat related.

Given the magnitude of bodily change involved, its profound social significance, and the irreversible nature of these procedures, it seems unlikely that many more surgeons in the United States and Europe will decide to perform genital reassignment surgeries without pre-operative mental health consultation, prior hormonal transition and real life experience, or some other substantial evaluative process. However, it should be noted that the ultimate decision regarding whether or not to operate in a particular case rests with the surgeon, i.e., he or she can decline to perform surgery even if the patient has been recommended according to the WPATH SOC or other evaluative means. As Green (1999) has noted, "If gender patients can procure surgeons who do not require psychiatric or psychological referrals, research should address outcomes for those who are professionally referred versus the self-referred."

GV in Persons with Somatic Disorders of Sex Development (Intersexuality)

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Overview

The process of decisions on gender assignment at birth is strongly emphasized in the clinical management of individuals with somatic disorders of sex development (DSD)—the term includes, but is not limited to, what was formerly called intersexuality. Patient-initiated gender reassignment at later ages, from late pre-school age through adulthood, varies with the specific DSD syndrome, from 0 % to about two-thirds of persons (Meyer-Bahlburg, 2005b). Among individuals who meet DSM-IV-TR criteria A and B for GID, those who have a DSD differ markedly in several respects from those who do not. These differences include variations in presentation, medical implications, and clinical context (Meyer-Bahlburg, 2009). As a consequence, the fourth edition of the DSM-IV-TR (American Psychiatric Association, 2000) placed individuals with gender dysphoria and a DSD under the category GIDNOS, rather than under the more specifically defined term, GID. GIDNOS is commonly used also for individuals without a DSD who meet some but not all required GID criteria (often referred to as "subthreshold cases"). Thus, GIDNOS is often applied to both groups of individuals with a DSD and gender identity concerns, those who meet all required GID criteria A and B, and those who meet only some of them. As the DSM-5 will be published in 2013 at the earliest and the revision process is in progress at the time of this writing, the current discussion will use the DSM-IV-TR formulations. Given the very limited literature on DSD-related GID and the fact that sex reassignment in individuals with DSD-related GID can occur at any age, we will deviate from the strictly age-defined outline of the previous sections, and will present the DSD-related issues in a more integrated fashion.

The present discussion will be limited to individuals with DSDs who present with clinically significant gender dysphoria or frank desire for gender reassignment. Clinical management of gender reassignment of such patients overlaps to some extent with that of persons with GID in the absence of a DSD. However, for individuals with a DSD, there are fewer barriers to legal gender reassignment, and the barriers to hormonal and surgical treatments in conjunction with gender reassignment are much lower. An example would be a 46,XY individual who was born with penile agenesis, assigned to the female gender and gonadectomized, although the testes were entirely normal and had provided for male-typical androgen exposure of the fetal brain, and who chooses to transition to the male gender in late adolescence (Meyer-Bahlburg, 2005a). Another example would be a 46,XX legally female individual with congenital adrenal hyperplasia (CAH) and an associated history of marked fetal masculinization and marked postnatal virilization (due to insufficient cortisol replacement therapy) who in adulthood requests reassignment to the male gender (Meyer-Bahlburg et al., 1996).

As illustrated by the above examples, several factors contribute to the lowered threshold for gender reassignment in individuals with a DSD. One is the fact that many of the underlying medical conditions require hormone administration as part of routine care. Moreover, many DSD syndromes involve infertility, which may either be congenital or due to gonadectomy performed according to past or present management guidelines (e.g., because of cancer risk) (Hughes et al., 2006). In addition, genital surgery has often been performed in infancy so that genital anatomy more closely corresponds to the assigned gender and is suitable for penile-vaginal intercourse at a later age (Hughes et al., 2006; Speiser et al., 2010). Legal and medical gender reassignment of individuals with a DSD may therefore take place at much younger ages than in persons with GID in the absence of a DSD. The evolution of clinical thinking and management guidelines concerning the indications for gonadectomy and genital surgery in infancy, and current controversies in these areas, are discussed in several recent reviews (Diamond & Beh, 2008; Frimberger & Gearhart, 2005; Hughes et al., 2006; Meyer-Bahlburg, 2009; Preves, 2003; Reiner, 2004; Speiser et al., 2010; Sytsma, 2006; Wiesemann et al., 2010). Decisions regarding hormonal and surgical procedures are complicated by the highly variable somatic presentations of the many diverse DSD conditions. A review of these syndromes is beyond the scope of the present review (see Grumbach, Hughes, & Conte, 2003). In addition, appropriate mental health care includes the often delicate task of disclosure of the medical history along with psychoeducation about the underlying biological condition (American Academy of Pediatrics, 1996; Meyer-Bahlburg, 2002a, 2008). Several major clinical management concerns that arise with patients with a DSD who experience gender dysphoria can be expected to profit from mental health interventions treatment and guidelines. These include: (1) the evaluation of gender and the respective psychiatric diagnosis, if any, in cases with incongruence between gender identity and assigned gender. This issue will be addressed largely in DSM-5 and only briefly touched upon in this report; (2) the process and validation of decisions regarding gender reassignment, including the identification and validation of the criteria on which such decisions are based; (3) the management of clinically significant gender dysphoria in individuals with a DSD who do not transition to gender change; (4) selected psychological and psychiatric aspects of the endocrine management of puberty in the context of gender reassignment; (5) selected psychological and psychiatric aspects of care involving genital surgery in the context of gender reassignment; (6) psychological implications of gonadectomy and their management; (7) disclosure of the DSD and treatment history to the patient; (8) the impact of DSD support groups; and (9) the qualifications of professionals who provide mental health services to patients with DSDs and gender-identity concerns.

Treatment of individuals with DSDs, in general, needs to address a variety of additional issues with mental health implications. Among these are the management of the gender assignment at birth and its implications for the risk of developing gender dysphoria later; the clinical and ethical issues involved in the disclosure of medical history and biological status to the patient; the patient's self-disclosure to others; evaluation and management of any associated psychiatric conditions, especially depression and suicide risk; the management of DSD-related stigma; assessment of adherence to hormone-replacement therapy and reasons for non-adherence; providing continuity of care from childhood and adolescence into adulthood; and many others (Meyer-Bahlburg, 2008; Sytsma, 2006; Wiesemann et al., 2010).

Gender Evaluation

The assessment of gender-related behavior and identity in individuals with DSDs has been greatly improved by the development of a number of psychometrically sound questionnaires and interview schedules, based on self-report or parent report (e.g., Deogracias et al., 2007; Zucker, 2005). The evaluation procedures and related clinical considerations have been described in several publications (Consortium on the Management of Disorders of Sex Development, 2006a; Meyer-Bahlburg, 2008; Money, 1994; Uslu et al., 2007). The validation of such gender-assessment tools is based primarily on the demonstration of significant differences, preferably with large effect sizes, between: (1) males and females in general; (2) individuals with gender dysphoria who do not have a DSD versus control individuals without either gender dysphoria or a DSD (separately for males and females); and (3) later, when available, between individuals with both a DSD and gender dysphoria and controls.

Clinical experience has demonstrated that, in children and young adolescents, the evaluation of gender identity and related medical decisions regarding potential hormonal and surgical treatments requires cautious shielding of the young patient from family and peer pressures. Strong rapport building is also required by the clinician who must avoid unwittingly "leading" the child or adolescent. The process demands an extensive commitment of time. To date, no systematic studies of related techniques and their outcomes are available.

Decisions on Gender Reassignment

When an individual with a DSD meets GID criteria A and B of DSM-IV-TR, the clinician and the patient, or in the case of minors, the primary caregivers and the clinician (with the child's participation increasing with cognitive maturation), through discussion arrive at a consensus regarding a decision for or against gender reassignment. In this context, reassignment usually means "reassignment" to the "other gender" relative to the patient's natal or legal gender, although occasionally adult patients self-identify as "neither-nor," "third gender," "intersex," or some other category that implicitly rejects an exclusively binary system of gender classification. This decision is also influenced by a number of factors in addition to the A and B criteria. These include: (1) the known or assumed implications of the individual's particular DSD syndrome for genetic and hormonal effects on the sexual differentiation of the brain and behavior (Hines, 2004); (2) available knowledge regarding the long-term gender outcome of other individuals with this particular syndrome (e.g., likelihood of long term satisfaction with the new gender identity and/or gender role versus regret and request for re-transition, degree of confidence in one's gender identity, etc.); and (3) the potential benefits and risks of gender-confirming genital surgery.

Readiness criteria for the various steps of gender reassignment, for instance in terms of cognitive and emotional development, especially in children and adolescents, have not been formulated for individuals with DSDs. Clinical experience and published case reports suggest that these factors should be considered along with the duration and consistency of gender incongruence and desire for gender change. In addition, different cultures and even subcultures within a given country, may differ in the prevailing gender categories and the salience and weight of criteria used in decision making on gender assignment (Lang & Kuhnle, 2008).

A stringent evaluation of gender reassignment decisions by RCT with long-term follow-up has never been attempted. Moreover, such a study is highly unlikely to be performed for a variety of reasons. These include the distress likely to be involved when gender assignment is done randomly rather than based on what clinicians and parents decide on as best on the basis of existing information, the expected low participation rate, and the large costs of long-term follow-up. A short-term waiting-list type study design might be acceptable to an IRB, but would be logistically difficult to implement and probably not even very informative given the slow processes involved in gender development. A less stringent validation of gender reassignment decisions (without RCT) in terms of long-term gender outcome by systematic prospective follow-up studies into at least mid-adulthood has also not yet been made, because of the obvious logistical and financial problems involved.

Long-term follow-up studies of gender outcome that are available at this time include individual case reports (e.g., Meyer-Bahlburg et al., 1996; Money, 1991). There are also one-time cross-sectional studies, such as follow-up of all patients seen within a clinic starting at birth or any time later (e.g., Frisen et al., 2009; Meyer-Bahlburg, Dolezal, Baker, Ehrhardt, & New, 2006; Migeon et al., 2002; Schutzmann, Brinkmann, Schacht, & Richter-Appelt, 2009; Warne et al., 2005) or studies of patients recruited from support groups or from multiple sources, without analyzing systematically for patient-initiated gender reassignment (e.g., Brinkmann, Schweizer, & Richter-Appelt, 2007; Jurgensen, Hiort, Holterhus, & Thyen, 2007; Richter-Appelt, Discher, & Gedrose, 2005). These studies typically cover a wide range of ages. Moreover, the time intervals between assignment and follow-up vary widely, and there are usually no attempts to do case–control comparisons of people with the same syndrome and the same degree of syndrome severity in terms of genital atypicality. Missing altogether is a validation of the specific criteria upon which gender reassignment decisions in patients with DSDs have been based (e.g., which factors best predict a stable gender identity and/or quality of life).

The best available evidence is a combination of Levels [B] Clinical trial (with reassignment as the intervention for gender-dysphoric cases) and [C] Longitudinal follow-up, without any specific intervention for cases without gender dysphoria. These observational follow-up studies often have significant methodological weaknesses, including small sample sizes, syndrome heterogeneity, high attrition rates in long-term follow-ups, large variations in the follow-up intervals, and non-comparability of (reassignment) cases and (non-reassignment) controls and across syndromes in reassignment-relevant medical characteristics and/or social contexts. A few summary reports integrate data from accessible existing case reports and small-group studies and, thereby, fit the APA evidence category of [F] Review (e.g., Cohen-Kettenis, 2005; Dessens et al., 2005; Mazur, 2005; Meyer-Bahlburg, 2005a, b). The GRADE system of evidence categorization (Swiglo et al., 2008) is not applicable because a systematic analysis of the risk/benefit ratio has typically not been attempted in these reports.

Gender Dysphoria Without Transition to Gender Change

As gender roles in industrialized societies have gained flexibility and the (non-DSD) transgender spectrum has diversified, the spectrum of gender outcomes in patients with DSDs has also expanded. Gender dysphoria does not always lead to gender reassignment and, even if legal gender change is obtained, the individual may not necessarily seek to obtain all facets of available hormonal and surgical treatment. By way of self-reflection alone, or in conjunction with discussions in support groups or psychotherapy sessions, the patient may decide against a gender transition altogether or only for a partial transition. No systematic work has addressed the psychological processes underlying such decisions in patients with DSDs.

Gender Reassignment and the Endocrine Management of Puberty

In young persons with gender dysphoria who do not have a DSD, the aversive reaction to endogenous puberty is considered an indicator of cross-gender identification and recent years have seen an increase in the use of pubertal suspension, mostly by the administration of GnRH analogs, to give the early adolescent more time to come to a conclusion regarding gender reassignment, to reduce the development of unwanted secondary sex characteristics before cross-sex hormone treatment is started, and to reduce the emotional distress associated with such developments (Hembree et al., 2009).

Medical suspension of puberty is not relevant to the management of gender dysphoria in patients with DSDs who do not have functional gonadal tissue (whether congenitally or due to gonadectomy). However, such an approach could, in principle, be considered for patients with functioning gonadal tissue and a DSD such as 46,XX CAH, where the excess androgen production of the adrenal is suppressed by glucocorticoid replacement therapy, but no such study has been published to date. It is noted, however that some adult patients with 46,XX CAH have simply stopped taking glucocorticoids to self-induce somatic virilization (Meyer-Bahlburg et al., 1996). In hypogonadal or agonadal persons with a DSD, puberty is usually induced by sex-hormone treatment, and when the decision for gender reassignment has been made, the sex-hormone treatment is done in line with the gender desired by the patient. The details of sex-hormone administration (specific medication, dosing, and mode of administration) are decided by the endocrinologist. On psychological grounds, the age when the patient's peers begin noticeable pubertal development is usually recommended as the starting age for the initiation of puberty in patients with DSDs. The supporting evidence for this is clinical experience and some evidence from early observational follow-up reports of patients with Turner's syndrome or hypopituitarism and late-initiated puberty (summarized in Meyer-Bahlburg, 1980), not based on systematic study. However, such early timing might also be recommended on the basis of recent data on non-human mammals showing continued capacity of the brain for organizational effects of sex hormones which gradually diminishes from early puberty to adulthood (Schulz, Molenda-Figueira, & Sisk, 2009). A number of retrospective studies have reported past periods of gender uncertainty in patients with DSDs who at the time of later evaluation in adulthood were content with their originally assigned gender (Meyer-Bahlburg et al., 2004; Richter-Appelt et al., 2005; Wisniewski, Migeon, Malouf, & Gearhart, 2004). Whether the resolution of such transient gender uncertainties of patients with DSDs is supported by sex-hormone treatment and its timing or other factors has not been studied. The question of postnatal hormone effects is raised in this context. For example, female-assigned 46,XX individuals with CAH who transition gender at later ages tend to be those with a history of high postnatal androgen exposure. Causes of such high exposure include delayed onset of glucocorticoid treatment or prolonged interruption of treatment (usually due to the unavailability of appropriate services or a lack of money), even if their prenatal androgen exposure and their genital masculinization at birth were not extreme (Meyer-Bahlburg et al., 1996). Available evidence is yet too limited for firm conclusions regarding the role of postnatal sex-hormone exposure in gender identity development.

Gender Reassignment and Gender-Confirming Genital Surgery

Detailed case reports (e.g., Money, 1991), clinical observations (e.g., Warne & Bhatia, 2006), and the first systematic qualitative studies (Frisen et al., 2009; Karkazis, 2008; Meyer-Bahlburg et al., 2009; Preves, 2003) have documented the widespread social stigmatization in patients with DSDs, which is in part related to gender-atypical appearance, especially of the genitals. The "optimal gender policy" for the management of DSD introduced in the mid-1950s by

John Money and colleagues at Johns Hopkins included recommendations for corrective genital surgery in early childhood. The aim was to bring the genital appearance in line with the assigned gender in order to facilitate the acceptance of the child as a member of the assigned gender in the social environment. This would, in turn, facilitate gender-appropriate rearing, and, thereby minimize the occurrence of later body image problems and gender doubts on the part of the patient. An additional aim was to provide the capacity for penile-vaginal intercourse in adulthood. Because it was easier to surgically construct a vagina than a penis, this policy entailed a bias towards female assignment in 46,XY patients with a DSD and a markedly undersized phallus (an extreme example is the syndrome of penile agenesis mentioned earlier). In the last 15 years, testimonials of individuals with DSDs whose care followed the "optimal gender policy," detailed case reports, and long-term observational follow-up studies on gender outcome and sexual functioning have raised significant doubts about the policy (Meyer-Bahlburg, 2005b). Many patients initiate gender change later despite early gender-confirming surgery, especially among 46,XY patients raised female (although the frequency varies considerably with the particular DSD syndrome). Furthermore, body image problems and even stigmatization can occur despite early genital surgery, especially if the latter is not well done. Additionally, genital surgery entails a significant risk of impaired sexual functioning, which has led to a rethinking of gender assignment decisions in newborns and increased conservatism regarding genital surgery (Hughes et al., 2006; Meyer-Bahlburg, 2002a; Preves, 1998), a process that is still ongoing. In the course of this debate, numerous outcome studies of genital surgery in individuals with DSDs have been published, which increasingly evaluate not only cosmesis (i.e., quality of the anatomic outcome) but also functional outcome (Crouch et al., 2008; Gastaud et al., 2007; Karkazis, 2008; Minto, Liao, Woodhouse, Ransley, & Creighton, 2003; Sircili et al., 2006). Yet, the surgical techniques utilized are highly variable; the existing cross-sectional follow-up studies usually involve only modest sample sizes of patients with DSDs, often with considerable variability in the particular DSD syndromes represented among the subjects as well as in the ages at evaluation; RCT approaches to compare surgical techniques, even for cosmetic outcome, have not been attempted; and the existing follow-up studies commonly do not even attempt to systematically compare different surgical techniques. It is, therefore, difficult to draw conclusions sufficient for evidence-based recommendations. This applies especially to the numerous functional outcome criteria that are of clinical relevance (Meyer-Bahlburg & Blizzard, 2004). The question of optimal timing of such genital surgery runs into similar difficulties, and existing consensus recommendations are uncomfortably nonspecific (Hughes et al., 2006; Speiser et al., 2010). While many aspects of the evaluation of surgical technique fall within the purview of surgery, the indications and patient readiness for surgery as well as the impact of surgery on sexual satisfaction and psychological well-being should ideally involve mental health professionals. Considerations of the implications of a patient's present or emerging sexual orientation are also typically missing in existing discussions regarding the indications for genital surgery. The capacity for penile-vaginal intercourse may be valued differently depending on the sexual orientation of the individual, especially relative to all the difficulties that the required surgeries sometimes entail (Consortium on the Management of Disorders of Sex Development, 2006b).

Psychological Implications of Gonadectomy

Particularly in DSD syndromes involving Y chromosomes, various forms of gonadal dysgenesis, gonadal dysfunction, and/or the risk of malignant transformation, removal of the gonads may be recommended regardless of sex reassignment decisions (Brown & Warne, 2005; Hughes et al., 2006). Although there is a rich non-DSD literature on the consequences of infertility, gonadectomy, and iatrogenic and endogenous hypogonadism, there has been no systematic study of these issues in individuals with DSDs, except for the inclusion of related clinical observations in occasional case reports.

Disclosure of the DSD History

Because of the potential of DSD-related social stigmatization and self-image problems, the "optimal gender policy" of the Johns Hopkins group recommended that provision of information on the biological status and medical information about the child with a DSD be limited to a few family members along with a carefully paced disclosure to the patient him/herself and detailed suggestions on disclosure procedures (e.g., Carmichael & Ransley, 2002; Money, 1994). Although Money recommended full disclosure by the time a child completed high school unless there were significant cognitive limitations, our experience is that other clinicians frequently advised permanent withholding of disclosure from the patient, and sometimes even from the parent. This approach has been challenged on ethical grounds, is clearly at variance with the patients' rights movement of recent decades, and may entail serious medical risks. This approach may also lead to a situation when an adult discovers his/her DSD status in a setting that does not include medical supervision (e.g., self-initiated review of medical records, self-diagnosis with the aid of web-based materials or internet contacts). Moreover, many case reports and patient testimonials have documented the negative psychological outcomes of such secrecy–for example, shame, distress to the point of suicidality, and distrust of primary caregivers and doctors, the latter in some patients leads to avoidance of routine medical services altogether (Garrett & Kirkman, 2009; Money, 1991; Preves, 2003; Schutzmann et al., 2009). Yet, the questions of timing and techniques of disclosure, as described, for instance, by Money (1994) and Meyer-Bahlburg (2008), have never undergone systematic study, and formal clinical trials are highly unlikely, given the difficult logistics of such trials with patients with rare disorders as well as the complexity of clinical considerations involved. For quite a few patients with DSDs and gender uncertainty or gender dysphoria, the disclosure of their medical information can be of help to their understanding of their behavioral gender atypicality, and may add arguments to their initiation of gender change, but this has been documented only in occasional case reports, not by systematic studies.

DSD Support Groups

Feelings of isolation are widespread among persons with DSDs, as in individuals with other uncommon medical conditions. Clinical experience and many patient testimonials have documented the tremendous beneficial effects many people experience when they are finally able to contact or meet face-to-face with others with the same or a similar condition through a DSD support group (e.g., Dreger, 1999; Garrett & Kirkman, 2009; Preves, 2003). Such groups are usually organized by persons with DSDs or their families, rather than by medical or mental health professionals. Despite the emotional relief that they can provide, support group contacts may also sometimes cause additional concerns (Meyer-Bahlburg, 2008). For instance, the composition of the group (e.g., the DSD syndromes represented within the group, the personalities of group members) may not meet the patient's expectations, and the information provided may not always be correct. Thus, patients who choose to participate in support groups should be encouraged to check back with their clinicians if they receive conflicting information or advice. Systematic research on the value of support groups in the clinical management of persons with DSDs has not yet been done.

Qualifications of Providers of Mental Health Services

The selected topics above provide a cursory overview of the issues, mental-health professionals (psychiatrists, psychologists, social workers, etc.) ought to be familiar with and able to manage clinically. Although recent medical guidelines emphasize the need for mental-health service providers with expertise in this area of care (Hembree et al., 2009; Hughes et al., 2006; Speiser et al., 2010), currently, very few mental health professionals are knowledgeable about treatment of persons with GID, and even fewer have much clinical experience with individuals with DSDs who have gender identity concerns. Given the dearth of specialized mental health service providers in this area, the gender evaluation and preparation for management decisions, including hormone treatment and genital surgery, are primarily made by endocrinologists and surgeons. Currently, there exist no formal programs for specialized training of mental-health personnel in this area. This Task Force strongly endorses the involvement of psychiatrists and other mental health professionals in the care of persons with DSDs and gender dysphoria; however, we conclude that it is premature to recommend detailed guidelines on required qualifications. To do so might jeopardize existing providers rather than contribute to closing the gap in the availability of mental health professionals in this area of clinical service.

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Appendix 1: Other APA Policy Concerns Regarding GV

In addition to the issue of treatment recommendations, several concerns regarding gender identity and the rights of persons who are gender variant are potential subjects for policy development within the APA. These include:

1. Support for treatment resources for gender variant and gender transitioning adults, and removal of barriers to care, including insurance coverage for accepted treatments, similar to AMA House of Delegates Resolutions 114 (A-08) and 122, and the American Psychological Association Council of Representatives Policy Statement regarding Gender Identity, Transgender and Gender Expression Non-discrimination.
2. Support for reasonable revision of identity documents for gender transitioning persons, including United States passports and birth certificates, which are currently difficult to correct.
3. Specific support for the marriage, adoption and parenting rights of transgender and gender transitioning persons, similar to existing APA policies regarding same gender couples.
4. Support for the rights of incarcerated persons who are gender variant or gender transitioning to personal safety and comprehensive healthcare, including transgender health services.
5. Support for transgender health services for members of the uniformed services and veterans, and opposition to the use of transgender or GV as grounds for discharge or rejection from enlistment.
6. Support for the most appropriate placement of persons who are transgender in gender-segregated treatment facilities, including inpatient psychiatric units, residential addiction treatment programs, and geriatric care centers.
7. Support for the inclusion and fair, collegial treatment of gender variant persons in all aspects of professional life, including medical schools, residency programs and fellowships in psychiatry, and the APA.
8. Support for professional and public education regarding transgender and GV, including:

(a) Scientifically sound, non-stigmatizing information about GV for patients and members of the general public.

(b) The inclusion of affirming, non-discriminatory information regarding GV and gender transition in the curricula of medical schools and psychiatric residencies and fellowships.

(c) Sponsorship of CME activities regarding transgender, such as presentations at the APA annual meeting and written materials in CME publications, particularly those used for maintenance of certification (MOC).

(d) Inclusion of questions about transgender on the ABPN certifying and MOC examinations.

(e) Tasking a specific APA Component or other group within the APA to monitor progress with regard to these activities.

Appendix 2: Other APA Concerns Regarding DSD

Because of the multiplicity of DSDs, the complex differences among them and their implications for integrated interdisciplinary care that includes mental health services; because not all DSDs are associated with either gender ambiguity or gender dysphoria; and because the needs of individuals with DSDs and gender dysphoria overlap incompletely with the needs of individuals with gender dysphoria in the absence of a DSD, the Task Force recommends that the APA create a separate mechanism for assessing the mental health needs of individuals with DSDs, whether or not gender dysphoria is present, and for working toward better integration of mental health professionals into the interdisciplinary teams that provide their care. This would include involvement with parents as soon as the DSD comes to attention, which increasingly occurs during pregnancy.

Areas identified to be addressed within this mechanism include (1) psychoeducation of parents or primary caregivers; (2) assessment of indications and readiness for gender confirming surgeries and procedures related to them; (3) age appropriate disclosure of DSD status and related medical/surgical history; (4) issues related to gonadectomy and infertility; (5) DSD-associated stigma including that related to genital anomalies and other body image issues as well as feelings of shame and guilt; (6) revealing DSD status to others, and (7) the impact of DSD status on relationship issues including sexual intimacy.

The recommendation to create a mechanism to address the mental health needs of individuals with DSDs, whether or not gender concerns are present, is not intended to exclude individuals with DSDs from APA recommendations pertaining to GID, GID-NOS or other manifestations of GV.

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