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Gender dysphoria: A critical discussion of the understanding and treatment of gender dysphoria

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Abstract

In DSM- 5, the American Psychiatry Association changed the diagnosis of gender identity disorder by adopting the term of gender dysphoria (GD). The development of gender identity is a complex and probably multi-factorial procedure relating to genetic, hormone and environmental factors. GD could be traced in two different developmental stages, either during childhood, or during adolescence. Transgenders require safe and effective hormonal support for the development of natural characteristics verifying their gender identity. The main indications for the beginning of the hormonal therapy are verified from the persistent fixation of dysphoria that they experience and the sufficient mental ability to give their consent and accept this irreversible therapy. Health practitioners should act within the framework of their duties, helping people with GD match their external appearance with their internal experience and improve their social functionality. Moreover, the support and proper communication between the family members will contribute to the acceptance of the gender identity, the reinforcement of self-confidence, the reduction of bias, the cause of emotional and behavioural mental disorders and the conquest of a good quality of living.

Keywords: gender dysphoria, transgender, diagnostic criteria, clinical health psychology, depathologization, psychological distress, gender nonconforming, DSM.

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The DSM diagnostic criteria for gender dysphoria

In the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM- 5), the American Psychiatry Association (APA) changed the diagnosis of gender identity disorder by adopting the term of gender dysphoria [1, 2]. This term refers to a person's dysphoria with the biologically determined gender and the intense desire to be relieved from the characteristics determining it [3, 4]. The heads of this term revision GD, Kenneth και Zucker, state that the new diagnosis relates to clinically important dysphoria (distress) or damage in the social, professional or other important sectors of a person's operation [1]. Main pursuit of the revision is the depathologization and the elimination of the stigma caused by the term disorder [5, 6, 7]. There is thus, emphasis placed on the focus of gender dysphoria and not on gender identity [8].

The diagnostic criteria include 'the unbearable discordance that people experience because of their biological gender, the intense desire to obtain the characteristics of another gender, the strong will to belong to another gender, the high confidence that they have emotions and responses that match with the other gender'. In order for one to be diagnosed, he should show two or more diagnostic criteria for at least six months' [1]. Furthermore, the diagnosis could be made in two different developmental stages, either during childhood (gender dysphoria in children), either during adolescence or adulthood (gender dysphoria in adolescents and adults) [1, 9]. According to recent estimations in the Western countries, rising is shown in the prevalence rate. About 1 out of 12,000 biological men and 1 out of 30,000 biological women experience this condition [10, 11]. However, the frequency of the referrals by paediatricians shows rapid increase [12]. In contrast with the European data, in a study conducted in Massachusetts, in a sample of 28,662 people, 0.5% were self-determined as transgender [13].

The causal biological, social and psychological factors

Aiming at better understanding, it is very important to seek the deeper factors owed to the cause of gender dysphoria. The development of gender identity is a complex and probably multi-factorial procedure relating to genetic, hormone and environmental factors [7]. According to the study of Coolidge, Thede & Young in 2002 [14], there is possibly high risk for hereditary predisposition reaching up to 62 %. Studies on the heredity of the transgender identity have shown that there could be genetic factors contributing to the gender development. In a recent review on 23 monozygotic male and female twins, 9 (39.1 %) met the criteria for gender dysphoria [9]. Nevertheless, the studies failed to establish the causal genes and isolate them [15].

Some theories place emphasis on the biological dimension to interpret this condition. In specific, they have dealt with the process of gender standardisation, focusing on proximal and peripheral biological effects, genetic and rewarding or hormonal and neuronal devices [16], as well as anatomical differences in the justification of genders and their variation [6]. Also, there are structural and functional differences in the brain, some of which are observed throughout life and others in specific developmental phases [17]. John Money & Anke Ehrhardt (1997) suggest the notion of brain sex, causing dispute [18, 7]. The hypothesis that many brain functions seem to have gender deformities led researchers to the study of whether transgender people have structures in the brain that align more with the verified gender. In this study, it was observed that the volume of the bed nucleus of stria terminalis in biological men was respective to the volume found in cisgender women [19, 20]. Opposite to this view more recent studies argued that these deformities were insignificant [21].

Gender differences in the brain are largely defined by the exposure to specific secretions during the sensitive prenatal period. The hormone environment of the developing foetal brain and its role in gender identity has constituted another sector of scientific study. It has been observed that during foetus life there are important differences for the gender configuration in the concentrations of these hormones [22]. Jordan-Young (2012) [23] argued that these differences could make a decisive factor in the differentiation of the behaviour of men and women later in their lives. In a study conducted it was observed that

infants with 46XX karyotype and inherent adrenal hyperplasia, girls are usually born, after being exposed during pregnancy to higher concentrations of androgens than normal [7]. In a meta-analysis, 5% of biological women showed gender dysphoria, which indicates that the prenatal exposure to androgens could influence the development of male gender identity characteristics [24]. In another study, conducted on 14 biological women patients with 46XY karyotype and Croatian exophthalmos, 8 (57%) formed a male identity [15]. Opposite to these highly rare cases, most transgenders have not identified themselves with endocrinopathy symptoms [7].

The theory of epigenesis argues that there is continuous interaction between genes and experiences, which changes the expression of genes, with no change in the underlying succession of the DNA [25]. Many studies state that social experiences can quite early imitate an epigenetic response and form permanent gender differences in the brain and in the behaviour [26, 27].

Social approaches turn to a different direction to understand the subject. The socio-cognitive theory underlines that men are an active constructor of cognitive schemas including gender and it is in constant interaction with the environment [6]. It has been argued that the social relationship between a parent and an infant in combination with cognitive learning with positive and negative reinforcement with respect to parents' expectations with social standards, contribute to the gender development in all children [28,29]. Robinow (2009) [30] argued that the presence of gender dysphoria could be attributed to difficulties in the relationship between a mother and a child, in the first two years. Undoubtedly, the attachment bonds in the beginning of life are crucial for the development of the gender identity [31]. The difficulty to create healthy relationships could be responsible for triggering or deactivating specific genes [32, 33]. Opposite to the adverse effects that it exerts on temperament of children, the lack of substantial relationship with the mother, positive correlation was not found between paternal social responsiveness and gender dysphoria [34].

However, modern researchers have extended their attention to the inclusion of biological, social and psychological processes arising at the same time during developmental course [6, 35] and they are considered in a combined way [36]. As mentioned above, dysphoria could be traced in two different developmental stages, either during childhood, or during adolescence [7, 1]. However, Shechner (2010) [37] underlines that in certain extraordinary situations there are indications even in the first three years. It is though possible that the symptomatology draws back during adolescence or adulthood [38]. Some findings are based on this hypothesis and argue that it is possible that child dysphoria draws back and is expressed as homosexuality [39, 21, 40]. On the other hand, there are cases where aggravation of dysphoria is observed during adolescence [7, 40]. Efforts have been made to trace the factors that play a decisive role in the maintenance or otherwise of dysphoria in adolescents. In a study conducted on 53 adolescents, those showing high dysphoria in adolescence at the age of 10-13, could create a permanent transgender identity. Important factors were the social environment, emotions towards adolescent changes and occurrence of sexual attraction [41].

A holistic approach to the treatment of gender dysphoria

Clinical doctors could use the aggravation of gender dysphoria in adolescents as a diagnostic tool and a criterion of suitability for medical intervention [42]. However, the uncertainty of obsession has led to intense disputes in terms of the therapeutic aspect [43]. There is lack of consent observed between health providers with respect to the objective of mental care in children before adolescence [44]. Some agree that the therapeutic objectives should focus on the reduction of dysphoria and on the acceptance of the biological gender [45].

Totally opposite approaches, they provide support to the families, they reinforce the acceptance of the transgender identity of children and they offer material support to facilitate the social transition [7]. Also, to avoid confusion in terms of the therapeutic intervention, the American Psychiatry Association published a guide suggesting to psychologists the provision of

support with "culturally competent, developmentally appropriate, and trans-affirmative psychological practice" [46].

Furthermore, researchers underline that there is imperative need to seek psychological support [47]. Specialised psychologists are called to negotiate with the unbearable dysphoria one feels and the difficulty in the relationships he/she forms either with the family or with the peers [48, 49]. Moreover, it is common that people with gender dysphoria also face other psychological and emotional difficulties, behaviour issues, mood disorders, worrying depression, anxiety, self-injury rates, even suicidal attitudes requiring therapeutic attention [50, 51]. In an ex-post facto study conducted by García-Vega, Camero, Fernández & Villaverde (2018) in 151 people, almost 38.3% faced risk from suicidal ideation and 23.8 had attempted to commit suicide [52]. Improper treatment of children with dysphoria could lead to destructive consequences [50].

Therapists have the knowledge and they try to improve the interpersonal relationships of these people thus, learning how to deal with their cross–gender behaviour, especially in conditions where one can cause interpersonal problems [47]. The psychotherapeutic approach suggested in this case, is the psychodynamic psychotherapy, because it places emphasis on internal conflicts of a person [6]. However, some studies are in progress and they will assess its effectiveness [40]. Whereas, therapy and support are highly necessary, and while they are broadly available, they are still insufficient for the full relief of these patients [53].

Meanwhile, therapy choices focusing on the biological basis of the issue vary. Some of them are the proportion of the gonadotropin hormone (GnRH) release, a reversible therapeutic method, which inhibits the secondary characteristics [53, 6]. Another therapy choice is through the gonadal steroid hormone, which is irreversible, just like the surgical removal of the genitals and the recreation of new ones depending on the desired gender [54]. The surgical operation includes a bilateral mastectomy, with breast restructuring, hysterectomy with ovary incision accompanied with metoidioplasty or phalloplasty in trans-female and bilateral emasculation with penis incision accompanied with vulva plastics and vagina plastics in trans-male [55]. According to the healthcare standard of the World Professional Association of Transgender Health (WPATH) a suitability criterion is a person being at the legal maturity age set by each country. In most cases this is the age of 18 years old [54].

Puberty suppression takes place with the use of analogies (GnRH) in Tanner 2 or 3 stage of adolescence [56, 6]. Following, the hypothalamus generates GnRH at low levels in children at the pre-adolescence age. The levels evolve in circles leading to the production of the LH hormone and the FSH hormone from the anterior pituitary gland [53]. These hormones stimulate the ovaries and the testicles for the production of gender hormones, oestrogens and testosterone, which are responsible for the development of the genitals. Also, they guide the breast development, the voice deepening, the menstrual cycle, the muscle shrinkage [57].

With respect to the use (GnRH), the disadvantage is that few references to young transgender people are traced. De Vries, Steensma, Doreleijers & Cohen-Kettenis (2011) [58] were the first who introduced the concept and research by using blockers (inhibitors of secondary adolescence characteristics) for the treatment of gender dysphoria in transgenders. The basic idea behind the inhibition of endogenous adolescence is the reduction of dysphoria blocking the development of discordant secondary characteristics. In this way, young people are given more time to get familiar with this situation and investigate their gender better [6, 49, 56]. In a group under review, all 70 selectable candidates showed improved mental health and overall functionality. The researchers reached to the conclusion that the therapy was reversible, which was one of its main advantages [58].

Despite the positive results in the inhibition of the secondary adolescence characteristics, many experts still express concern with the application of this therapy. Viner et al. argued that the therapy could be physically harmful for adolescents and it could lead to adverse psychological effects [53]. Also, Olson, Durwood, DeMeules & McLaughlin (2016) [59], on the one hand, identified the moral dilemmas emerging, and on the other hand, admitted that the available data on the adolescence

inhibition are limited and many questions remain unanswered. One of the main reasons against this therapy is the argument that the transition to adolescence might lead to a person's agreement with their biological gender. Based on the findings of the study conducted by Steensma, McGuire, Kreukels, Beekman & Cohen-Kettenis (2013) [39], most children develop a homosexual orientation and gender dysphoria ceases to exist. However, in the cases of re-examination made in people who had been under therapy treatment (GnRH) no long-term consequences hindering their lives were found [53].

Concluding, the decision for the application of the GnRH therapy is very difficult and cannot be made by pushing aside the moral dilemmas emerging [53]. Both supporters and the opponents of the adolescence characteristics inhibition are guided by the same moral principles 'benefice, damage cause avoidance and autonomy' [60]. It is necessary to develop a clear overview taking into account, that the GnRH therapy is relatively new and controversial. Additional qualitative studies and empirical studies are required [7].

Transgenders require safe and effective hormonal support for the development of natural characteristics verifying their gender identity [45]. The main indications for the beginning of the hormonal therapy are verified from the persistent fixation of dysphoria that they experience and the sufficient mental ability to give their consent and accept this irreversible therapy [7]. According to recent guidelines of the Endocrinology Association, most adolescents develop this ability at the age of 16 [53]. Also, Hembree et al. (2017) [61] considered it necessary to start the therapy before 16, without having many published data of experiences relating to it. The main objectives of the hormone therapy are the repression of endogenous gender hormone determined by the genetic gender of a person and the maintenance of the gender hormone levels of the normal scale. This first offers relief to the dysphoria that a person feels, and it also gives them time for a conscious decision about gender change [61].

Many studies showed long-term safety and effectiveness in transgender adults with necessary the repetitive tests of possible complications [61]. A retrospective study of Jarin et al. on 116 adolescents, 14-25 years old with GD, noted that hormone therapy had minimum effect. Specifically, in trans-men the only findings were the increase of haemoglobin, haematocrit, body mass index and reduction of high density of fat proteins. In trans-women, lower testosterone and ALT were observed [53]. In another study, many statistically significant changes were noted in the mean rates of normal parameters without clinical concerns about safety [47]. However, there is lack of knowledge with respect to long-term results of the therapy, hence it is necessary to conduct more studies and re-examinations.

Summing up, clinical doctors are obliged to help a person and follow the subscribed hormone therapy, since there are no better choices at the time [53]. It has been observed that patients who are under therapy might develop serious psychological effects [62, 50, 51]. A more specialised approach, such as the "case by case" system will ensure a more appropriate therapy for each case. However, the optimal practice in this sector includes the interdisciplinary approach of the matter [63] and the search for a biopsychosocial intervention [6]. All health practitioners should act within the framework of their duties, helping people with GD match their external appearance with their internal experience and improve their social functionality [45]. Also, the support and proper communication between the family members [50] will contribute to the acceptance of the gender identity, the reinforcement of self-confidence, the reduction of bias, the cause of emotional and behavioural mental disorders and the conquest of a good quality of living [64, 65].

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