ORIGINAL RESEARCH

Psychological Support, Puberty Suppression, and Psychosocial Functioning in Adolescents with Gender Dysphoria

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ABSTRACT

Introduction. Puberty suppression by gonadotropin-releasing hormone analogs (GnRHa) is prescribed to relieve the distress associated with pubertal development in adolescents with gender dysphoria (GD) and thereby to provide space for further exploration. However, there are limited longitudinal studies on puberty suppression outcome in GD. Also, studies on the effects of psychological support on its own on GD adolescents' well-being have not been reported.

Aim. This study aimed to assess GD adolescents' global functioning after psychological support and puberty suppression.

Methods. Two hundred one GD adolescents were included in this study. In a longitudinal design we evaluated adolescents' global functioning every 6 months from the first visit.

Main Outcome Measures. All adolescents completed the Utrecht Gender Dysphoria Scale (UGDS), a self-report measure of GD-related discomfort. We used the Children's Global Assessment Scale (CGAS) to assess the psychosocial functioning of adolescents.

Results. At baseline, GD adolescents showed poor functioning with a CGAS mean score of 57.7 ± 12.3. GD adolescents' global functioning improved significantly after 6 months of psychological support (CGAS mean score: 60.7 ± 12.5; $P < 0.001$). Moreover, GD adolescents receiving also puberty suppression had significantly better psychosocial functioning after 12 months of GnRHa (67.4 ± 13.9) compared with when they had received only psychological support (60.9 ± 12.2, $P = 0.001$).

Conclusion. Psychological support and puberty suppression were both associated with an improved global psychosocial functioning in GD adolescents. Both these interventions may be considered effective in the clinical management of psychosocial functioning difficulties in GD adolescents. **Costa R, Dunsford M, Skagerberg E, Holt V, Carmichael P, Colizzi M. Psychological support, puberty suppression, and psychosocial functioning in adolescents with gender dysphoria. J Sex Med 2015;12:2206–2214.**

Key Words. Gender Dysphoria; Adolescents; Psychosocial Functioning; Puberty Suppression

Introduction

Gender dysphoria (GD) individuals experience a marked incongruence between their assigned gender and their experienced gender [1]. GD refers to this stressful condition resulting in clinically significant distress or impairment in

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The study was conducted in the Gender Identity Development Service, Tavistock and Portman NHS Foundation Trust, Tavistock Centre, 120 Belsize Lane, London NW3 5BA.

important areas of functioning [2,3]. When supporting and treating children and adolescents with GD, health professionals should broadly conform to the Standards of Care of the World Professional Association for Transgender Health (WPATH) [4]. These guidelines indicate that psychological support should focus on exploring gender identity, role, and expression; addressing the negative impact of GD and stigma on mental health; alleviating internalized transphobia; enhancing social and peer support; improving body image; promoting resilience. Psychological interventions such as individual, couple, family, or group therapy should be provided within a multidisciplinary gender identity specialty service [4].

Studies indicate that cross-sex hormonal treatment (CSHT) improves well-being in GD adults [5,6]. However, it has been observed that despite many years of psychotherapy the GD of most adolescents does not often abate. Rather, once these young persons, who are already experiencing considerable distress over their gender identity, undergo the pubertal development of their biological sex, their psychological well-being deteriorates significantly [7]. Because this risk can be so great, the need for an early intervention has become paramount.

Delemarre-van de Waal and Cohen-Kettenis have proposed an early intervention approach, the Dutch model [8], which aims to eliminate the exposure to unwanted pubertal hormones, limit GD, and improve the ability to "pass" as the desired gender in adulthood. It considers adolescents, after a comprehensive psychological evaluation with many sessions over a longer period of time, eligible for puberty suppression, cross-sex hormonal treatment (CSHT), and gender reassignment surgery (GRS) at the respective ages of 12, 16, and 18 years when there is a history of GD; no psychosocial problems interfering with assessment or treatment; adequate family or other support; and good comprehension of the impact of medical interventions. According to this protocol, suppressing puberty and allowing young individuals the opportunity to explore their gender identity would provide some relief from the distress associated with the development of secondary characteristics [8]. Consistently, some studies indicate that puberty suppression leads to a better psychosocial outcome [2,9].

Since the release of the Dutch model, there has been disagreement about the appropriateness of treatment in minors. Some practitioners have questioned the ethics and safety of this intervention. Conversely, other health care professionals have argued they have an obligation to alleviate suffering and it would be unethical to allow a patient to suffer through the distress of pubertal development when there is a way of preventing it [10]. Anyway, puberty suppression by gonadotropin-releasing hormone analogs (GnRHa) has increasingly become accepted in clinical management of adolescents with GD. Even if further studies are needed, GnRHa are considered a safe and putatively reversible intervention which should be provided to people in need of it, especially if allowing puberty to progress appears likely to harm the young person [7].

There are limited longitudinal studies on the psychosocial functioning of GD adolescents after puberty suppression [2,9]. Also, studies on the effects of psychological support on its own on GD adolescents' psychosocial functioning have not been reported.

Aims

The aim of this study was to assess GD adolescents' psychosocial functioning in follow-up evaluations. Based on previous literature [2,9] and our clinical experience, we hypothesized a poor general functioning at baseline, an improvement after psychological support, and a further improvement after the beginning of the GnRHa.

Methods

Study Design and Participants

This longitudinal study was conducted at the Gender Identity Development Service (GIDS) in London. The health care pathway provided at the GIDS is described in Figure 1. A consecutive series of 436 adolescents (mean age = 15.74 ± 1.38 years; natal male/natal female ratio = 1:1.7) were referred between 2010 and 2014 to the GIDS. 201 adolescents (mean age = 15.52 ± 1.41 years; natal male/natal female ratio = 1:1.6) completed the diagnostic procedure (about 6 months) and were invited to take part in the follow-up evaluations. No GD adolescent refused to participate and all participants and their parents gave informed consent. By clinical interview, all adolescents fulfilled DSM-IV-TR criteria in use at the time for Gender Identity Disorder. The GIDS has adopted the WPATH Standards of Care [4]. There were no significant differences in socio-demographic characteristics as well as baseline CGAS scores

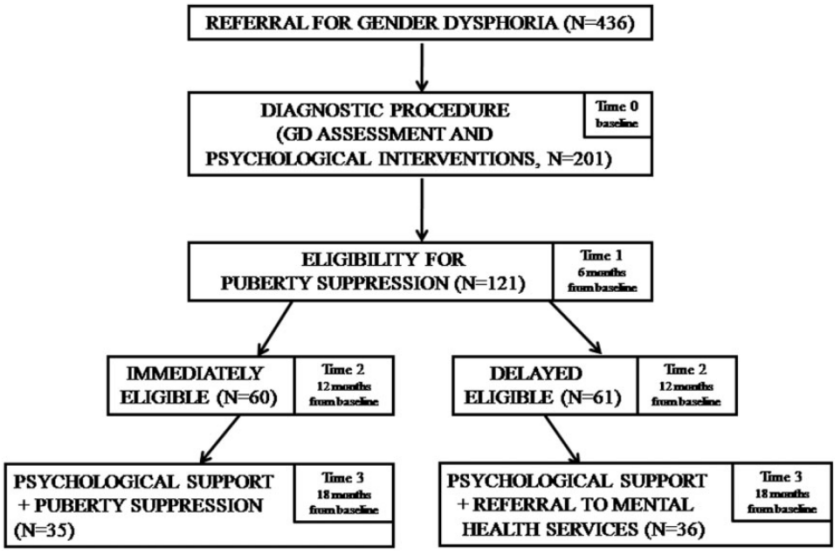

Figure 1 Health care pathway at the Gender Identity Development Service (GIDS)

between adolescents with a GD diagnosis enrolled in this study (N = 201) and adolescents who did not complete the diagnostic procedure (N = 235; all $P > 0.1$).

Psychological Support

The GIDS has developed a standardized psychological assessment which is part of the diagnostic procedure, in accordance with the WPATH guidelines [4]. This model emphasizes the early recognition and non-judgmental acceptance of gender identity problems as well as the importance of ameliorating associated behavioral, emotional and relationship difficulties [11]. Ample room is given to adolescents to explore different options for gender expression. Together with their families GD adolescents are supported in making difficult decisions regarding the extent to which they are allowed to express a gender role that is consistent with their gender identity. Also the timing of changes in gender role and possible social transition are extensively explored. This ensures that decisions about gender expression and the treatment of GD are thoughtfully and recurrently considered. Health care professionals help families to make decisions regarding the timing and process of any gender role changes for their young children. Information is provided to parents to weigh the potential benefits and challenges of choices.

The aims outlined are achieved through various psychotherapeutic interventions, ranging from individual to family and group therapy, which are carried out on a regular basis (at least once a month). Social and educational interventions are also provided if necessary. All these interventions are well coordinated and integrated in a comprehensive management plan agreed with local services (The Network Model). Moreover, the care pathway provides continuous psychological support to the patients' emotional and behavioral changes that may occur during the puberty suppression treatment. All adolescents received psychological support for the entire duration of the study.

Eligibility for Puberty Suppression

In accordance with the WPATH Standards of Care [4], adolescents were able to commence puberty suppression with GnRHa if they met the following criteria: (i) a presence of GD from early childhood on; (ii) an increase of the GD after the first pubertal changes; (iii) an absence of psychiatric comorbidity that interferes with the diagnostic work-up or treatment; (iv) adequate psychological and social support during treatment; and (v) a demonstration of knowledge and understanding of the effects of GnRHa, cross-sex hormone treatment, surgery, and the social consequences of sex reassignment. All GD adolescents were considered eligible for puberty suppression. Eligible adolescents were divided into two groups: immediately eligible and delayed eligible adolescents, consistently with Cohen-Kettenis and colleagues [12]. Immediately eligible adolescents started GnRHa at the end of the diagnostic procedure (0.75 ± 0.59 years from baseline). On the contrary, some adolescents were considered delayed eligible and continued to receive psychological support without

any type of physical intervention until they felt ready to make a decision in collaboration with their families and the clinicians. In those specific cases clinicians needed more time to make the decision of starting GnRHa because of possible comorbid psychiatric problems and/or psychological difficulties. If concomitant problems were observed (e.g., psychiatric problems, substantial problems with peers, or conflicts with parents or siblings), the young person was referred to a local mental health service. All possible medical and/or psychosocial interventions were well coordinated, integrated in a comprehensive management plan agreed with local services, and tended to be individualized in relation to the psychopathology/difficulty. The primary aim was for the child and the family to function better. After being assessed and, if necessary, treated for a psychiatric comorbidity, all delayed eligible GD individuals received puberty suppression. The interval from the start of the diagnostic procedure to the start of puberty suppression took about 1.5 years (1.5 ± 0.63 years from baseline). None of the delayed eligible individuals received puberty suppression at the time of this study.

Main Outcome Measures

Socio-Demographic Information

The data collected included: natal gender (male–female ratio), age (at assessment, at start of GnRHa), education level (yes/no), living arrangement (both parents, one parents, other), living in the chosen gender (partly, i.e., by wearing clothing and having a hairstyle that reflects gender identity/completely, i.e., by also using a name and pronouns congruent with gender identity/no), and change of name (yes/no).

GD-Related Discomfort

The Utrecht GD Scale (UGDS) was used to measure adolescents' GD-related discomfort. This is a 12-item questionnaire specifically developed to measure GD in a dimensional way. In particular, the UGDS focuses on core aspects of GD and gender identity. The adolescents are asked to rate their agreement on a 5-point scale. The total score ranges from 12 to 60. Higher UGDS total scores indicate high level of GD [13]. The scale has shown a high reliability (a Cronbach's alpha of 0.66–0.80 in one sample, and 0.78–0.92 in another); as reported by the authors, the lower alphas on the scale were only found among control subjects, which may be related to the lower variability of GD in these groups [13]. Cronbach's alpha for UGDS in our sample was 0.76–0.88. The UGDS has also shown a good discriminant validity, when adolescents and adults with and without a GD diagnosis were compared.

Measure of Global Psychosocial Functioning

The Children's Global Assessment Scale (CGAS) was used to assess adolescents' psychosocial functioning. The CGAS is one of the most widely used rating scales designed to measure how children and adolescents function psychosocially in daily life [14]. This clinical-rated instrument is divided into 10-point intervals and ranges from 1 to 100, with higher scores indicating better psychosocial functioning. The CGAS is useful to assess psychosocial/psychiatric outcomes, socio-cognitive competence and changes because of treatment [15]. In particular, it has been used in several longitudinal and epidemiological studies in clinical and non-clinical populations, naturalistic cohorts [16], and young GD individuals [9]. The inter-rater reliability was tested by Shaffer and his colleagues [14] before publication of CGAS, in order to minimize variation because of clinician background. Test–retest has been described in different studies with raters' consistence over time [16].

All CGAS were administered by qualified psychologists, psychotherapists, and psychiatrists who attended training and intra-class correlation assessment ($0.76 \leq$ Cronbach's $\alpha \leq 0.94$). Participants were assessed at baseline (Time 0) and every following 6 months, for a total of four evaluations over an 18-month period. Follow-up evaluations were performed 6 months from the baseline (Time 1: after 6 months of psychological support); 12 months from the baseline (Time 2: after 12 months of psychological support for delayed eligible GD adolescents, and after 12 months of psychological support + 6 months of puberty suppression for immediately eligible GD adolescents); 18 months from the baseline (Time 3: after 18 months of psychological support for delayed eligible GD adolescents, and after 18 months of psychological support + 12 months of puberty suppression for immediately eligible GD adolescents).

Participants were compared with a sample of young individuals without observed psychological/psychiatric symptoms ($N = 169$), using the same methodology of this study, the CGAS scale [16]. This sample was part of a large naturalistic cohort

of children/adolescents who attended child and adolescent mental health services (CAMHS; N = 12,613) in Stockholm in order to be evaluated for their psychosocial functioning.

Statistical Analysis

Chi-squared and independent *t*-tests were used to test for possible differences in socio-demographic characteristics and CGAS scores between natal men and natal women; adolescents who did not complete the diagnostic procedure and adolescents who received a GD diagnosis; immediately eligible and delayed eligible individuals. Dependent and independent *t*-tests were used to test for possible differences in CGAS scores between baseline and follow-up evaluations, in both immediately eligible and delayed eligible individuals.

Finally, independent *t*-tests were used to compare GD adolescents' CGAS scores with CGAS scores from a sample of children/adolescents without observed psychological/psychiatric symptoms [16].

Ethics

The study received ethical approval from the National Research Ethics Service (NRES) Committee London-Camden and Islington.

Results

Socio-Demographic Characteristics of the Sample

Socio-demographic characteristics of the sample (N = 201) are reported in Table 1. The majority of GD adolescents were living with one parent, were in education, were living as a member of the desired gender, and had changed their names. However, compared with natal women, a higher proportion of natal men did not live with their biological parents, had left school, were not living as a member of the desired gender, and had not changed their names. Moreover, natal women reported a significantly higher GD-related discomfort than natal men. Natal men and women did not differ in their age, both at assessment and when GnRHa was started (Table 1).

Table 1 General characteristics of 201 adolescents with gender dysphoria

Age in years, M (SD)	All participants	Natal men	Natal women	Statistical comparisons *t*-test; *P* value
Baseline	15.52 (1.41)	15.61 (1.70)	15.46 (1.22)	0.73; 0.47
Range	12–17	12–17	12–17	
At start of GnRHa	16.48 (1.26)	16.64 (1.22)	16.39 (1.28)	0.74; 0.46
Range	13–17	13–17	13–17	
Living arrangement, N (%)				χ^2; *P*
Both parents	78 (41.5)	25 (33.7)	53 (44.2)	8.95; 0.01
One parent	100 (53.2)	35 (51.5)	65 (54.2)	
Other*	10 (5.3)	8 (11.8)	2 (1.6)	
No details	13	8	5	3.47; 0.06
Education				
Yes	168 (89.8)	56 (83.6)	112 (93.3)	20.52; <0.001
No	19 (10.2)	11 (16.4)	8 (6.7)	
No details	14	9	5	
Living in role				
Completely	117 (62.6)	29 (42.6)	88 (73.9)	23.14; <0.001
Partly	27 (14.4)	12 (17.7)	15 (12.6)	
No	43 (23.0)	27 (39.7)	16 (13.5)	
No details	14	8	6	
Change name				
Yes	107 (57.5)	23 (33.8)	84 (71.2)	
No	79 (42.5)	45 (66.2)	34 (28.8)	
No details	15	8	7	
	Mean (SD)	Mean (SD)	Mean (SD)	*t*-test; *P* value
UGDS†	54.7. (6.8)	51.6 (9.7)	56.1 (4.3)	4.07; <0.001
CGAS at baseline	57.7 (12.3)	55.4 (12.7)	59.2 (11.8)	2.15; 0.03

*Living in children's home, living with other family's members
†Data available in 160 individuals, 50 natal men (31.25%), 110 natal women (68.75%)
M (SD) = mean (standard deviation); UGDS = Utrecht Gender Dysphoria Scale; CGAS = Children's Global Assessment Scale; GnRHa = gonadotropin-releasing hormone analogs

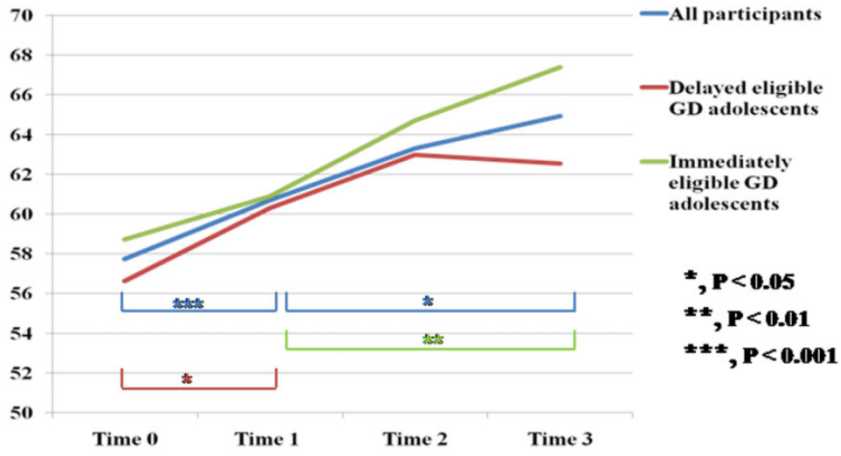

Figure 2 Gender dysphoria adolescents' psychosocial functioning (CGAS) at baseline, after psychological support, and after puberty suppression

CGAS, Children's Global Assessment Scale; Time 0, baseline; Time 1, 6 months from baseline (after 6 months of psychological support); Time 2, 12 months from baseline (delayed eligible gender dysphoria [GD] adolescents, after 12 months of psychological support; immediately eligible GD adolescents, after 12 months of psychological support + 6 months of puberty suppression); Time 3, 18 months from baseline (delayed eligible GD adolescents, after 18 months of psychological support; immediately eligible GD adolescents, after 18 months of psychological support + 12 months of puberty suppression)

CGAS at Baseline

GD adolescents' CGAS at baseline (Time 0, $M = 57.7 \pm 12.3$) revealed a score suggestive of "variable functioning with sporadic difficulties or symptoms in several but not all social areas" (range 50–59). Natal men had a significantly lower functioning than natal women at baseline ($P = 0.03$; Table 1). CGAS scores were not associated with any demographic variable, in both natal men and women (all $P > 0.1$). GD adolescents' CGAS scores at baseline were significantly lower ($t = 7.4$, $P < 0.001$) than that found in a sample of children/adolescents without observed psychological/psychiatric symptoms ($N = 169$, 67.1 ± 12) [16].

CGAS at Follow-Up

Compared with baseline, GD adolescents' psychosocial functioning was increasingly higher at each of the following evaluations (Figure 2). In particular, CGAS scores were significantly higher after 6 months of psychological support (Time 0 vs. Time 1, $P < 0.001$). Also there was a further significant improvement 18 months from baseline (Time 1 vs. Time 3, $P = 0.02$; Table 2).

Delayed eligible GD adolescents, who received only psychological support for the entire duration of the study, had a significantly better psychosocial functioning after six months of psychological support (Time 0 vs. Time 1, $P = 0.05$). However, despite scoring better at the following evaluations they did not show any further significant improvement in their psychosocial functioning (Table 2). Also, the delayed eligible group continued to score lower than a sample of children/adolescents without observed psychological/psychiatric symptoms [16], even after 18 months of psychological support (Time 3, $t = 2.0$, $P = 0.04$).

On the contrary, the immediately eligible group, who at baseline had a higher, but not significantly different psychosocial functioning than the delayed eligible group, did not show any significant improvement after 6 months of psychological support. However, immediately eligible adolescents had a significantly higher psychosocial functioning after 12 months of puberty suppression compared with when they had received only psychological support (Time 1 vs. Time 3 $P = 0.001$; Table 2). Also, their CGAS scores after 12 months of puberty suppression (Time 3) coincided almost perfectly with those found in a sample of children/adolescents without observed psychological/psychiatric symptoms ($t = 0.01$, $P = 0.99$) [16].

There were no significant differences in CGAS scores between GD natal men and women in all the follow-up evaluations (all $P > 0.1$). Also delayed eligible and immediately eligible GD adolescents did not differ in their demographic variables (all $P > 0.1$). Finally, even if at the end of the

Table 2 Gender dysphoria adolescents' psychosocial functioning (CGAS) at baseline, after psychological support, and after puberty suppression

	Time 0	Time 1	Time 2	Time 3	Statistical comparisons
	N	N	N	N	
	M/F ratio	M/F ratio	M/F ratio	M/F ratio	
	M (SD)	M (SD)	M (SD)	M (SD)	*t*-test; *P* value
All participants	N = 201 1:1.6 57.73 (12.27)	N = 201 1:1.6 60.68 (12.47)	N = 121 1:1.6 63.31 (14.41)	N = 71 1:1.6 64.93 (13.85)	4.87*; <0.001 3.70†; <0.001 4.11‡; <0.001 1.73§; 0.08 2.40¶; 0.02 0.76**; 0.45
Delayed eligible GD adolescents	N = 100 1:1.6 56.63 (13.14)	N = 100 1:1.6 60.29 (12.81)	N = 61 1:1.6 62.97 (14.10)	N = 36 1:1.6 62.53 (13.54)	1.99*; 0.05 2.89†; 0.005 2.29‡; 0.02 1.24§; 0.22 0.89¶; 0.37 0.15**; 0.88
Immediately eligible GD adolescents	N = 101 1:1.7 58.72 (11.38)	N = 101 1:1.7 60.89 (12.17)	N = 60 1:1.7 64.70 (13.34)	N = 35 1:1.7 67.40 (13.93)	1.31*; 0.19 3.02†; 0.003 3.66‡; <0.001 1.85§; 0.07 2.63¶; 0.001 0.94**; 0.35
Statistical comparisons *t*-test; *P* value	1.21††; 0.23	0.34††; 0.73	0.69†; 0.49	1.49†; 0.14	

*Comparison between baseline and Time 1
†Comparison between baseline and Time 2
‡Comparison between baseline and Time 3
§Comparison between Time 1 and Time 2
¶Comparison between Time 1 and Time 3
**Comparison between Time 2 and Time 3
††Comparison between delayed eligible GD adolescents and immediately eligible GD adolescents
CGAS = Children's Global Assessment Scale; M/F = natal male/natal female; M (SD) = mean (standard deviation)

follow-up study (Time 3) the immediately eligible group had a 5-point higher CGAS score than the delayed eligible group, this difference failed to reach significance, possible because of sample size (Table 2).

Discussion

Results from this study indicate that psychological support is associated with a better psychosocial functioning in GD adolescents, especially if presenting psychological/psychiatric problems. Moreover, puberty suppression was associated with a further improvement in global functioning. Finally, global functioning improved steadily over time in GD adolescents receiving both psychological support and GnRHa.

Medical and surgical interventions are considered to be necessary components of effective management in GD adults. These partially reversible/irreversible treatments aim to align the individuals' physical appearance with their internal gender identity and have been shown to improve the patients' psychosocial well-being [3,5,6]. GD adolescents may experience psychosocial problems at puberty onset because of an intensification of feelings of incongruence between self-perception and their natal gender [2,9]. Therefore, in the prepubertal population, the suppression of puberty using continuous GnRHa is a fully reversible treatment which has the fundamental benefit for children of gaining time to reflect over their gender identity, have a real-life experience living as the other gender (i.e., in dress and behavior) and determine whether or not they desire the transition [12,13]. Preventing the development of a body contrary to the experienced gender, puberty suppression allows GD adolescents to experience a smooth transition into their desired gender role. This translates into an improvement in many aspects of their psychosocial functioning, such as mood improvement and school integration [2,9]. Consistently, these results underline the importance of puberty suppression for GD adolescents' well-being.

The GD adolescents' improved global functioning after only 6 months of psychological support may have different explanations. First, it

could indicate that the timely addressing of psychosocial problems contributes to enhanced psychological well-being. Second, as also reported in previous studies among both GD adults and adolescents [2,3,5,9], our clinical experience suggests that patients attending a gender unit are pleased in the knowledge that the puberty suppression will be performed within a reasonable time and refer a distress reduction because of their accepted and understood requirements. Moreover, the initiation of the puberty suppression may have a psychological meaning which *per se* could be fundamental in reducing distress. In any case, data are too limited to express conclusively.

Both natal men and women benefited from the clinical approach, although natal men had a significantly worse functioning than natal women at baseline. It is even more important if we consider that natal men reported more social difficulties than natal women (higher dropout from school and more frequently not living with their parents). Interestingly, natal women reported significantly more GD-related discomfort than natal men. As already suggested [2], with a mean of 15 years most natal women had developed their breasts and had their menarche, which are likely to be associated with higher levels of distress. Therefore, natal men and women may need to be thought about separately and may require different interventions. Also, as the revised Dutch model [8] encourages considering GD individuals eligible for puberty suppression when they are 12 years old, studies are ongoing at our service to explore the possible benefit of further reducing the age for being eligible for puberty suppression. Even if the absence of a control group in our study does not allow us to pronounce conclusively on these comparisons, GD adolescents undergoing puberty suppression in addition to the psychological support result in psychosocial functioning levels that are impossible to differentiate from a sample of peers. These additional findings further indicate the effectiveness of both psychological support and puberty suppression in enabling young GD individuals to reach a satisfactory psychosocial functioning.

In the present study, there are some limitations. Even if psychosocial functioning is of crucial importance to identify clinical or sociocognitive difficulties [17], we focused only on a measure of psychosocial well-being. Also, the study sample was relatively small and came from only one clinic. Most importantly, despite the findings seem to suggest a cumulative and increasing over time positive effect of psychological support and GnRHa on young GD patients' well-being, results could have also different explanations because of the study design. For instance, getting older has been positively associated with maturity and well-being [18]. Ideally, a blinded randomized controlled trial design should have been performed. However, it is highly unlikely that adolescents would be motivated to participate. Also, disallowing puberty suppression, resulting in irreversible development of secondary sex characteristics, may be considered unethical [2]. Moreover, we cannot be conclusive on the higher GD-related distress in natal women compared with natal men. There are different versions of the UGDS scale for men and women, with specific items reversely coded because of gender. These differences do not allow drawing strong conclusions from the gender difference analysis.

Conclusions

In conclusion, this study confirms the effectiveness of puberty suppression for GD adolescents. Recently, a long-term follow-up evaluation of puberty suppression among GD adolescents after CSHT and GRS has demonstrated that GD adolescents are able to maintain a good functioning into their adult years [2]. The present study, together with this previous research [2], indicate that both psychological support and puberty suppression enable young GD individuals to reach a psychosocial functioning comparable with peers.

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