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Original article

## Early Medical Treatment of Children and Adolescents With Gender Dysphoria: An Empirical Ethical Study

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### A B S T R A C T

**Purpose:** The Endocrine Society and the World Professional Association for Transgender Health published guidelines for the treatment of adolescents with gender dysphoria (GD). The guidelines recommend the use of gonadotropin-releasing hormone agonists in adolescence to suppress puberty. However, in actual practice, no consensus exists whether to use these early medical interventions. The aim of this study was to explicate the considerations of proponents and opponents of puberty suppression in GD to move forward the ethical debate.

**Methods:** Qualitative study (semi-structured interviews and open-ended questionnaires) to identify considerations of proponents and opponents of early treatment (pediatric endocrinologists, psychologists, psychiatrists, ethicists) of 17 treatment teams worldwide.

**Results:** Seven themes give rise to different, and even opposing, views on treatment: (1) the (non-) availability of an explanatory model for GD; (2) the nature of GD (normal variation, social construct or [mental] illness); (3) the role of physiological puberty in developing gender identity; (4) the role of comorbidity; (5) possible physical or psychological effects of (refraining from) early medical interventions; (6) child competence and decision making authority; and (7) the role of social context how GD is perceived. Strikingly, the guidelines are debated both for being too liberal and for being too limiting. Nevertheless, many treatment teams using the guidelines are exploring the possibility of lowering the current age limits.

**Conclusions:** As long as debate remains on these seven themes and only limited long-term data are available, there will be no consensus on treatment. Therefore, more systematic interdisciplinary and (worldwide) multicenter research is required.

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### IMPLICATIONS AND CONTRIBUTION

This study shows large differences in the moral evaluation of using puberty suppression in children and adolescents with gender dysphoria. Current policies are predominantly expert opinion based because only limited long-term data are available. Nevertheless, increasing numbers of treatment teams embrace early treatment and explore lowering age limits.

**Conflicts of Interest:** There are no potential conflicts, real and perceived, for all named authors.

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Gender dysphoria (GD) is a condition in which individuals experience their gender identity (the psychological experience of oneself as male, female, or otherwise) as being incongruent with their phenotype (the external sex characteristics of their body) [1]. The most extreme form of GD, often called transsexualism, is accompanied by a strong wish for gender reassignment [2]. Of the individuals experiencing GD, a small number is children.

Only in a minority of prepubertal children, GD will persist and manifest as an adolescent/adult GD. The percentage of “persisters” appears to be between 10% and 27% [3–5]. Treatment for prepubertal children therefore is predominantly psychological. However, those children who still experience GD when entering puberty, almost invariably will become gender dysphoric adults [6]. These young adolescents may demand hormonal interventions such as puberty blockers (gonadotropin-releasing hormone agonists) to suppress the development of secondary sex characteristics. In recent years, the possibility of puberty suppression has generated a new but controversial dimension to the clinical management of adolescents with GD. The purpose of puberty suppression is to relieve suffering caused by the development of secondary sex characteristics, to provide time to make a balanced decision regarding the actual gender reassignment (by means of cross-sex hormones and surgery) and to make passing in the new gender role easier [7]. In the Netherlands, puberty suppression is part of the treatment protocol and as a rule possible in adolescents aged 12 years and older who are past the early stages of puberty and still suffer from persisting GD. When there are good reasons to treat an adolescent before the age of 12 years, for example, because of the height of the adolescent, treatment at a slightly younger age is acceptable.

Although an increasing number of gender clinics have adopted this Dutch strategy and international guidelines exist in which puberty suppression is mentioned as a treatment option [8,9], many professionals working with gender dysphoric youth remain critical [10,11]. Concerns have been raised about the risk of making the wrong treatment decisions and the potential adverse effects on health and on psychological and psychosexual functioning. Proponents of puberty suppression, on the other hand, emphasize the beneficial effects of puberty suppression on the adolescents’ mental health, quality of life, and of having a physical appearance that makes it possible to live unobtrusively in the desired gender role [12].

Strikingly, in this debate, proponents and opponents of puberty suppression use the same ethical principles (autonomy, beneficence, nonmaleficence) but interpret them in totally different ways. Ethical discussions are often held on the level of these ethical principles only, with moral intuitions moving between extremes; for example, puberty suppression as a blessing versus treatment as an evident danger or a definite competence of the child versus incompetence because the child is simply too young and has an immature developmental level to decide on these substantial issues. What is missing in the discussions is an exploration of underlying ideas and theories about the nature of gender (dichotome or fluid) and GD (mental illness or social construct), child welfare, and child competence. Proponents and opponents seem to have different views on these issues, often without openly stating them. It is an essential task to elucidate these underlying ideas and theories because they substantially influence the judgment on GD treatment.

Strikingly, in the literature on GD, most of the times, only proponents give arguments for their treatment position. It is difficult to find arguments against the use of puberty suppression as a treatment option as opponents rarely publish in professional journals. Therefore, to date there is no clear overview of the considerations of proponents and opponents regarding the use of early medical interventions in GD. An overview explicating considerations, which underlie the different views on puberty suppression, could be the first step toward a more consistent approach recommended by health care professionals across

different countries. The aim of our study was to explicate the considerations of proponents and opponents of puberty suppression to move forward the ethical debate.

For this purpose, we have performed an empirical ethical study to answer the following questions: (1) what are the moral intuitions (direct thoughts or opinions) of informants on puberty suppression in GD; (2) what are the (underlying) ideas, assumptions, and theories of informants about the etiology of GD, and the concepts “gender,” “child competence,” and “best interests”?; and (3) do moral intuitions, ideas, and theories of proponents of puberty suppression differ from those of opponents, and in what sense?

## Methods

An empirical ethical approach was followed, using a qualitative interview and questionnaire study. The study was approved by the institutional review board of the Leiden University Medical Centre.

Fifteen professionals participating in the study were interviewed face-to-face, six by using Skype (Microsoft Corp., Redmond, WA). Some treatment teams indicated that they did not master the English language well enough for a direct interview. These teams were offered similar questions in a questionnaire by e-mail. The questionnaire was filled in by 15 professionals. The empirical data were obtained between October 2013 and August 2014.

Initial interview topics were formulated after examination of the relevant literature. In accordance with qualitative research techniques, the interview topics evolved as the interviews progressed through an iterative process to ensure that the questions captured all relevant emerging themes [13,14]. The interviews contained general topics and no close ended questions.

The informants were child and adolescent psychiatrists, psychologists, and endocrinologists from diverse treatment teams in European and North American countries. Two Dutch ethicists, who are not directly related to a treatment team, were also interviewed. The treatment teams were purposefully selected on the basis of their stance in favor or against puberty suppression in the past. Interestingly, at the time this study was initiated, puberty suppression was not part of the treatment protocol for adolescents of several treatment teams. However, during this study, puberty suppression did become part of the treatment protocol of some of these teams. When interviewing these teams, extra emphasis was placed on the arguments they used to justify these treatment changes. The 36 professionals who participated in this study worked in 10 different countries (Figure 1).

An extensive description of the analysis of the data is given in Appendix A, which can be found online.

## Results

From the literature, interviews, and questionnaires, seven themes emerged that lead to different, and sometimes even opposing, views on the treatment of adolescents with GD. Representative quotations were chosen to illustrate the themes identified.

### *The availability or nonavailability of an explanatory model for gender dysphoria*

With regard to the causes of GD, no single cause has been found so far. In the literature, genetic, hormonal, neurodevelopmental,

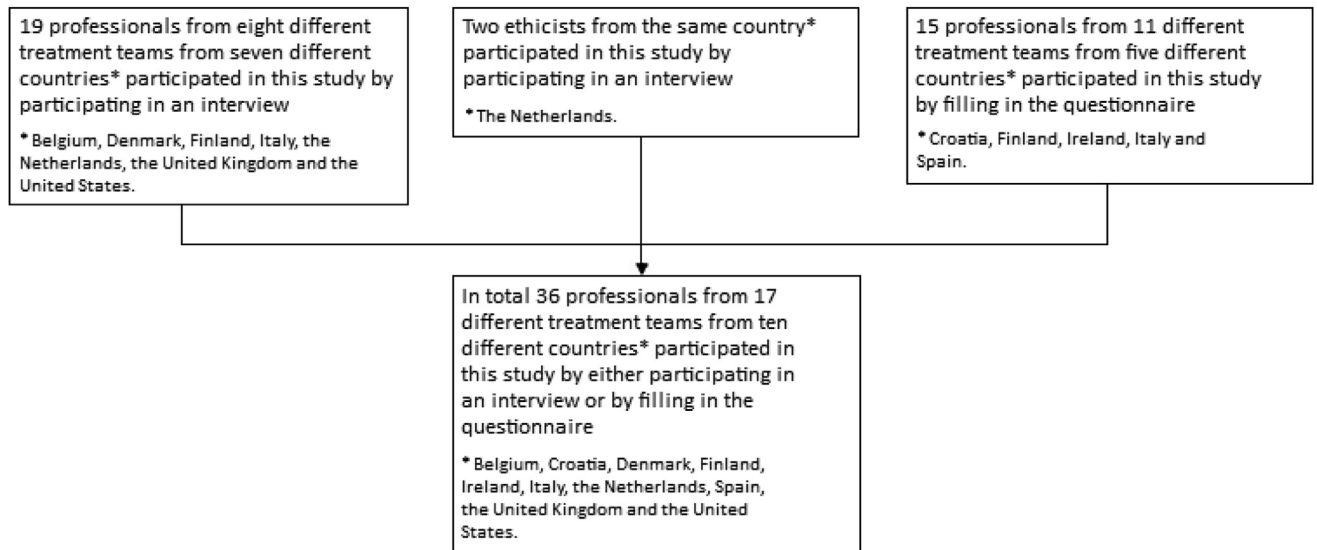


Figure 1. Participating informants.

and psychosocial factors have been suggested to play a role [15,16]. Most of our informants believe that a single cause is unlikely, but they see GD as influenced by diverse factors. Some put forward the possibility of a (slightly) different etiology for different subtypes. Others think that biological, for example, neurodevelopmental, factors play a dominant role and believe that psychofamilial factors have very little or no influence. Altered hormone exposure during fetal development was also suggested as a potential cause.

“I think that nature and nurture both contribute to the development and expression of gender dysphoria. The role of each is different in each individual and this explains the heterogeneity of gender dysphoria expression.”

-Endocrinologist

“I believe biological factors play the predominant role. In my work, I have not found psycho familial or social factors that children and adolescents with gender dysphoria have in common, which is also known in scientific literature.”

-Psychologist

We asked the informants whether an explanatory model for GD would affect ideas regarding treatment options of adolescents. Many, including some informants who are skeptical about early medical treatment in GD, stated that the etiology does not affect the way adolescents with GD should be treated. Furthermore, most respondents think that not knowing the etiology should not prevent providing care and understanding of the person's predicament.

One respondent compared it to having a broken leg:

“[It is possible to] understand that it is painful and impairs function even if you do not know exactly why or how that person has broken his leg.”

-Psychiatrist

### The nature of gender dysphoria

Is GD a normal variation of gender expression, a social construct, a medical disease, or a mental illness? In the DSM-5 [17] and the to-be-released ICD-11 [18], the main challenge in

classifying GD has been to find a balance between concerns related to the stigmatization of mental disorders and the need for diagnostic categories that facilitate access to health care, payment by insurance companies, and the communication between diverse professions [19].

“I think the focus should be on getting rid of the stigma that accompanies psychiatric disorders instead of on saving specific disorders from the psychiatric disorder group.”

-Psychiatrist

According to the literature, some authorities classify GD as a mental illness [20,21], whereas various scholars state that the diagnosis of gender-variant children with GD is a prime example of a conflict between the individual and the society in which he or she lives [22,23]. The interviews and questionnaires show that most informants find it difficult to articulate their thoughts about this aspect. Most see GD as neither a disease nor a social construct, but as a normal, but less frequent variation of gender expression. However, some note that you would not need medical procedures to make the lives of people with GD more satisfying if it were merely a normal variation. The need for treatment is what defines GD as a disorder, they state. Others state that it is a disease in the sense that there is a disconnection between body and mind, which causes suffering.

“Even in the most gender dysphoria benevolent society many individuals with gender dysphoria would still need medical procedures to make their lives more satisfying, and I think that this is what makes gender dysphoria a disorder (but not a mental one).”

-Psychiatrist

We asked whether these diverse ideas and theories about the nature of GD affect the decision whether to use puberty suppression in adolescents with GD. Most informants state that a classification in itself should never be a factor in deciding what treatment to follow. However, one informant stated:

“I find it extremely dangerous to let an adolescent undergo a medical treatment without the existence of a pathophysiology and I consider it just a medical experimentation that

does not justify the risk to which adolescents are exposed[...] Gender dysphoria is the only situation in which medical intervention does not cure a sick body, but healthy organs are mutilated in the process of adapting physical and congruent psychological identity.”

-Psychiatrist

#### *The role of physiological puberty in developing a consistent gender identity*

In the literature, the concern is raised that interrupting the development of secondary sex characteristics may disrupt the development of a gender identity during puberty that is congruent with the assigned gender [24]. The interviews and questionnaires show that some treatment teams share this view.

“I have met gay women who identify as women who would certainly have been diagnosed gender dysphoric as children but who, throughout adolescence, came to accept themselves. This might not have happened on puberty blockers.”

-Psychologist

“I believe that, in adolescence, hypothalamic inhibitors should never be given, because they interfere not only with emotional development, but [also] with the integration process among the various internal and external aspects characterizing the transition to adulthood.”

-Psychiatrist

However, although most informants agreed on the fact that treatment with puberty suppression indeed may change the way adolescents think about themselves, most of them did not think that puberty suppression inhibits the spontaneous formation of a gender identity that is congruent with the assigned gender after many years of having an incongruent gender identity. Some professionals stated that, although the blockers may disrupt the development of a consistent gender identity, in some cases, the very real risks of the present (the young person's distress and consequent possible suicide risk) override the possible risks for the future (the individual's uncertainty). According to them, we need to take into account what is the best for that individual person.

“I think that the distress for a child experiencing the ‘wrong’ puberty is so great that it overrides the opinion that the child should have the experience of ‘crisis of gender.’”

-Psychiatrist

Various endocrinologists made the comparison with precocious puberty; a medical condition in which puberty blockers have been used for many years, and no cases of GD have been described (at least to their knowledge). Besides, most of them emphasize that they deliberately start treatment with puberty suppression only when the youngsters have reached Tanner stage two or three to give them at least a kind of “feeling” with puberty before starting with puberty suppression. Furthermore, some state that this is an issue that should be researched so that decisions can be made based on facts rather than on opinions.

#### *The role of comorbidity*

The risk of co-occurring psychiatric problems in children and adolescents with GD is high. The percentage of children referred for GD who fulfilled DSM criteria of at least one diagnosis other than GD is 52% [25]. The psychiatric comorbidity in adolescents

with GD is 32% [26]. Another study shows that 43% of the children and adolescents seen in a gender identity clinic suffer from major psychopathology [27]. To date, the precise mechanisms that link GD and coexisting psychopathology are unknown. The interviews and questionnaires show that professionals think that it differs between individuals and it depends on the comorbid problem whether the GD and the co-occurring problem(s) are merely coexisting or interrelated. The impact of society is also mentioned as a mediating factor. Some professionals stress that we have to keep in mind that society marginalizes minority groups.

“This [marginalization of minority groups] can lead to internalized self-hatred and many other mental health difficulties such as self-harm, depression, anxiety, isolation, suicide etc. Being picked on or being abused as minority groups leads to fear which is a mediating variable for mental health problems.”

-Psychologist

“I see gender dysphoria as a cause of reactive co-occurring problems (such as anxiety and depression); nevertheless, comorbidity with other non-reactive psychiatric problems (such as attention deficit disorder with hyperactivity, bipolar disorder...) can present in parallel.”

-Psychiatrist

We asked whether severe coexisting psychopathology influences the treatment of the GD, and in what way. Some professionals stress the importance of addressing treatment of severe coexisting psychopathology before addressing GD-related medical interventions in youngsters with GD. Others state that it depends on the specific comorbid problem whether it influences the treatment of the GD and in what way. They state that, although coexisting psychopathology may interact with GD and GD-related medical interventions, the GD and the comorbid problem may result from completely different underlying processes and should therefore have separate treatment plans, goals, and strategies.

#### *Possible physical or psychological harmful effects of early medical interventions and of refraining from interventions*

The possible consequences of suppressing puberty for cognitive and brain development are unclear and debated at this moment [9,28]. The normal pubertal increase in bone mineral density may be attenuated by puberty suppression, and it is uncertain if there is complete catch-up after treatment with cross-sex hormones [29–31]. In the interviews and questionnaires, the loss of fertility was often mentioned as a major consequence of treatment. In addition, various informants stressed the importance of the fact that the penis and scrotum should be developed enough to be able to use this tissue to create a vagina later in life. Very early use of puberty suppression impairs penile growth and consequently makes certain surgical techniques impossible.

Although (the sparse) research until now mostly shows no negative, and even positive results regarding the consequences of treatment with puberty suppression [28,32], proponents remain cautious and opponents skeptical because of the fact that (long-term) risks and benefits of available treatments have not been fully established.

“The positive attitude of many health care providers in giving hypothalamic blockers[...] is based on the need to conform to

international standards, even if they are conscious of a lack of information about medium and long term side effects.”

-Psychiatrist

In the interviews and questionnaires, harmful effects of refraining from interventions are mentioned too. Multiple professionals state that many young gender dysphoric people will harm themselves without intervention or at least the promise of future treatment options. Some professionals mention that nowadays the average age at which puberty starts is earlier than a few decades ago. This makes them wonder whether the age criterion of 12 years, that many treatment teams use, is still suitable.

“The question cannot be posed as ‘do something which may cause harm’ against ‘doing no harm’, as doing nothing results in very high levels of distress and poor outcome as well.”

-Psychiatrist

“So why are we saying 12? It is arbitrary if the average age for the start of puberty in the UK or in Northern Europe is now 8 or 9. [...] this is a very lively debate in our team. [...] It [lowering the age of starting with puberty suppression] is for the younger ones, who are going into puberty at 10 or 11. I mean I think we probably have to extend it to them.”

-Psychologist

#### *Ideas about child competence and the decision making authority*

Competence is an important point of disagreement when puberty suppression is discussed. In the literature, proponents have concluded that relatively young children can participate meaningfully in the consent process, whereas opponents raise doubts about what children can understand [33–35]. Most informants state that competence should be determined for every single case individually. Most state that children develop at different rates in terms of their physical, mental, emotional, and sexual maturation. They state that the ability of adolescents to make decisions regarding their own medical treatment should be determined based on the following diverse aspects: their cognitive abilities, emotional maturity, and the presence or absence of comorbidities.

Various informants do mention the child’s chronological age as a criterion; some state that the child should be at least 12, 13, or 14 years old, whereas others mention the age of 16 years as the cut-off age.

“I suppose[...] the child [should be] at least 12 or 13 [years old] but it depends on the child, their background, family and supportive systems too.”

-Psychologist

Some state that not a child’s chronological age should count, but the fact that the child’s puberty has started. One informant stated that the decision whether to start with hormones should only be made during adulthood:

“We should facilitate his or her process of integration in the society and if he or she would undergo hormone- and surgical treatments he or she could decide [on this] during adulthood.”

-Psychiatrist

We asked who should have authority to take decisions regarding early medical treatment. Some informants stated that the adolescent is able to give informed consent himself or herself. Others stated that youngsters must at least partially depend on

their parents or other caregivers to make decisions regarding their treatment. Some noted that there is no discussion in other situations where youngsters receive medication; for example, parents making decisions about starting children on anti-epileptic medication without the child’s consent. These informants therefore question why there is a discussion about the authority to decide on the start of medication in GD. It was further mentioned that a team of specialists experienced in treating transgender youth are responsible for these youngsters and the recommended treatment.

“People do not ask about how kids feel about going on this mood stabilization, how do you feel about going on this medication for depression. The only place where this happens is gender. [...] all kids are entering the clinic on five psychotropic medications without hesitation [of the parents and clinicians]. And nobody has this discussion.”

-Pediatrician

“The fact that somebody wants something badly, does not mean that a health care provider should do it for that reason; a medical doctor is not a candy seller.”

-Professor of health care ethics and health law

#### *The role of the social context in the way gender dysphoria is perceived*

The study shows that the way gender-variant behavior of youth is perceived is very different in the various countries. Some informants think that the way gender-variant behavior is approached influences to a large extent whether it is pathologized or not.

“I believe that hypothalamic blockers treatment satisfies health care providers’ anxiety, pathologizing individuals with gender dysphoria, inducing them to follow the sex-gender binarism.”

-Psychiatrist

“You might think that the experience of gender dysphoria is kind of a solution [for all their problems] that is culturally available for adolescents nowadays. [...] I think that the culture is kind of offering or allowing this idea that all problems are stemming from the gender problem. And then they stick to this fixated idea and [they] seek for assessment and we readily see that they have numerous and relatively serious psychological and developmental problems and mental health disorders.”

-Psychiatrist

Some informants wondered in what way the increasing media attention affects the way gender-variant behavior is perceived by the child or adolescent with GD and by the society he or she lives in. They speculated that television shows and information on the Internet may have a negative effect and, for example, lead to medicalization of gender-variant behavior.

“They [adolescents] are living in their rooms, on the Internet during night-time, and thinking about this [gender dysphoria]. Then they come to the clinic and they are convinced that this [gender dysphoria] explains all their problems and now they have to be made a boy. I think these kinds of adolescents also take the idea from the media. But of course you cannot prevent this in the current area of free information spreading.”

-Psychiatrist

Furthermore, interviews and questionnaires show that treatment teams feel pressure from parents and adolescents to start with treatment at earlier ages.

## Discussion

Using empirical methods, our project aimed to explicate the considerations of proponents and opponents of puberty suppression in GD. A representative international group of professionals participated, enabling us to identify ideas, assumptions, and theories on GD (treatment). These data give us unique insights in the GD practice and the way ethical concepts function in this field.

The interviews and questionnaires show that the discussion regarding the use of puberty suppression goes in diverse directions and is in full swing. It touches on fundamental ethical concepts in pediatrics; concepts such as best interests, autonomy, and the role of the social context. It is striking that the standards of care for GD of the World Professional Association for Transgender Health and the Endocrine Society [8,9] are considered too liberal and too conservative. Furthermore, since the start of this study, puberty suppression has been adopted as part of the treatment protocol by increasing numbers of originally reluctant treatment teams. More and more treatment teams embrace the Dutch protocol but with a feeling of unease. The professionals recognize the distress of gender dysphoric youth and feel the urge to treat them. At the same time, most of these professionals also have doubts because of the lack of long-term physical and psychological outcomes. Most informants acknowledge proarguments and counterarguments regarding the use of puberty suppression. Several teams, who work according to the Dutch protocol, are also exploring the possibility of lowering the current age limits for early medical treatment although they acknowledge the lack of long-term data.

For several informants, a reason to use puberty suppression was the fear of increased suicidality in untreated adolescents with GD. Research shows that transgender youth are at higher risk of suicidal ideation and suicidal attempts [3,36]. Nevertheless, caution is needed when interpreting these data because they do not show causality or directionality. Another aspect mentioned by various informants is that nowadays the average age at which puberty starts is earlier than a few decades ago. Indeed, there is a research showing earlier puberty in girls in the United States and Europe [37–39]. In U.S. boys, data were found to be insufficient to evaluate a secular trend [37].

As still little is known about the etiology of GD and long-term treatment consequences in children and adolescents, there is great need for more systematic interdisciplinary and (worldwide) multicenter research and debate. As long as there are only limited long-term data in support of the guidelines, there will be no true consensus on treatment. To advance the ethical debate, we need to continue to discuss the diverse themes based on research data as an addition to merely opinions. Otherwise ideas, assumptions, and theories on GD treatment will diverge even more, which will lead to (even more) inconsistencies between the approaches recommended by health care professionals across different countries.

Several professionals mentioned that participation in the study made them think more explicitly about the various themes, and it encouraged them to discuss the issues in their teams. In the Dutch teams, we therefore introduced moral deliberation sessions to talk about these ethical topics. The first reactions of the professionals were positive; the sessions made them rethink essential aspects of the protocol. Furthermore, they had more understanding for the viewpoint of other disciplines. Moral deliberation sessions could be a valuable step in

gaining more insight in the contexts of GD treatment disagreements, especially as long as treatment data are still lacking.

There are strengths and weaknesses to the present study. The qualitative nature of the study made it possible to find out, in depth, the ways in which people think or feel about specific topics. Another strength of this study is the representativeness of the participants, by interviewing 36 professionals from ten different countries. This gives a wide variety of considerations of professionals in European and North American countries. Nevertheless, the considerations explicated in this study are therefore solely Europe and North America based. The considerations of professionals are likely to be different in other parts of the world.

We encourage gathering more qualitative research data from treatment teams of additional countries, aggregating a broader range of views on the treatment of gender dysphoric youth. More empirical data from treatment teams all over the world could lead to new information and/or confirmation of the results found in this study.

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## Supplementary data

Supplementary data related to this article can be found at <http://dx.doi.org/10.1016/j.jadohealth.2015.04.004>.

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