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Abstract

The aim of this qualitative study was to obtain a better understanding of the developmental trajectories of persistence and desistence of childhood gender dysphoria and the psychosexual outcome of gender dysphoric children. Twenty five adolescents (*M* age 15.88, range 14–18), diagnosed with a Gender Identity Disorder (DSM-IV or DSM-IV-TR) in childhood, participated in this study. Data were collected by means of biographical interviews. Adolescents with persisting gender dysphoria (persisters) and those in whom the gender dysphoria remitted (desisters) indicated that they considered the period between 10 and 13 years of age to be crucial. They reported that in this period they became increasingly aware of the persistence or desistence of their childhood gender dysphoria. Both persisters and desisters stated that the changes in their social environment, the anticipated and actual feminization or masculinization of their bodies, and the first experiences of falling in love and sexual attraction had influenced their gender related interests and behaviour, feelings of gender discomfort and gender identification. Although, both persisters and desisters reported a desire to be the other gender during childhood years, the underlying motives of their desire seemed to be different.

Keywords

childhood gender dysphoria, Gender Identity Disorder, gender variant, psychosexual development, sexual orientation, transgender, transsexual

Introduction

The sense of discomfort resulting from incongruence between gender identity and assigned sex is often referred to as *gender dysphoria* (Fisk, 1973). Currently, gender dysphoria is an important aspect of the psychiatric diagnosis of a Gender Identity Disorder (GID) (DSM-IV-TR; American Psychiatric Association, 2000; but see Meyer-Bahlburg, 2009). The majority of adolescents and

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adults who meet the criteria for GID, retrospectively report the presence of gender dysphoric feelings dating back to childhood (e.g., Blanchard, 1988; Green, 1974; Freund, Langevin, Satterberg & Steiner, 1977; Smith, Goozen, Kuiper & Cohen-Kettenis, 2005; Zucker, Mitchell, Bradley, Tkachuk, Cantor & Allin, 2006). Interestingly, the prospective literature on gender dysphoric children shows that gender dysphoria in childhood does not irrevocably result in gender dysphoria or GID in adolescence and adulthood. Feelings of gender dysphoria persisted into adolescence in only 39 out of 246 of the children (15.8%) who were investigated in a number of prospective follow-up studies (Bakwin, 1968; Davenport, 1986; Drummond, Bradley, Peterson-Badali & Zucker, 2008; Green, 1987; Kosky, 1987; Lebovitz, 1972; Money & Ruso, 1979; Wallien & Cohen-Kettenis, 2008; Zucker & Bradley, 1995; Zuger, 1984). Although the persistence rates differed between the various studies (2% to 27%), the results unequivocally showed that the gender dysphoria remitted after puberty in the vast majority of children.

Because the previously mentioned prospective studies primarily focused on determining persistence or desistence of gender dysphoria at the time of follow-up, factors contributing to the persistence or desistence of childhood gender dysphoria are still largely unknown. One exception was the study by Wallien and Cohen-Kettenis (2008), who were the first to determine a relationship between some childhood characteristics and persistence or desistence of childhood gender dysphoria. They showed that the more extreme the gender dysphoria was in childhood, the more likely it was that the gender dysphoria would persist into adolescence. However, none of the prospective studies focused on the developmental process. Despite some case reports and vignettes described in the literature on children with persisting gender dysphoria (e.g., Hill, 2008), insight into the factors contributing and understanding of the process of desisting and persisting of childhood gender dysphoria is currently not at hand.

With regard to adolescent or adult sexual orientation, the prospective findings clearly showed a heightened prevalence of bi- or homosexuality for children with gender dysphoria (Bakwin, 1968; Davenport, 1986; Drummond, Bradley, Peterson-Badali & Zucker, 2008; Green, 1987; Kosky, 1987; Lebovitz, 1972; Money & Ruso, 1979; Wallien & Cohen-Kettenis, 2008; Zucker & Bradley, 1995; Zuger, 1984). The prevalence rates, however, varied. For instance, Green (1987) carried out a follow-up study amongst 66 gender dysphoric boys and reported a bi- or homosexual orientation for 75% of the boys in fantasy and 80% in behaviour. Zucker & Bradley (1995), with an initial sample of 45 gender dysphoric children (40 boys and 5 girls), reported lower prevalence rates; 31% of the 41 children reported a bi- or homosexual orientation in fantasy and 18% of 19 children reported a bi- or homosexual orientation in behaviour, while 58% of the participants reported no sexual experiences at follow up. Drummond et al. (2008), following 25 girls, reported a bi- or homosexual orientation in fantasy for 32%, and 24% of the girls reported a bi- or homosexual orientation in behaviour. Wallien & Cohen-Kettenis (2008) reported prevalence rates for bi- or homosexuality in attraction, fantasy, sexual identity and behaviour for 68% – 81% of the boys and 60% – 82% of the girls, in 44 gender dysphoric children followed up in adolescence and adulthood (31 boys, 13 girls). Similar to the outcome studies on gender dysphoria, the prospective studies on sexual orientation were not concerned with the developmental process.

The current qualitative study was carried out to obtain greater understanding of the processes and factors that may have contributed to the persistence and desistence of childhood gender dysphoria and sexual orientation development of gender dysphoric children, by interviewing 25 adolescents, who all had fulfilled the criteria of GID (DSM-IV or DSM-IV-TR, American Psychiatric Association, 1994, 2000) in childhood. In the interviews we focused on the perception and

Table 1. Demographic background information

	Total group (N = 53)	Persisters (N = 29)	Desisters (N = 24)
Natal sex			
% (N) Boys	56.6 (30)	58.6 (17)	54.2 (13)
% (N) Girls	43.4 (23)	41.4 (12)	45.8 (11)
Age at childhood assessment			
M (SD)	9.41 (1.46)*	9.92 (1.26)	8.81 (1.47)
Age at follow-up			
M (SD)	16.11 (1.70)	16.14 (1.84)	16.07 (1.54)
Full-scale IQ			
M (SD)	100.26 (12.82)	98.83 (12.28)	102 (13.50)
Marital Status			
% (N) Two parents	81.1 (43)	82.8 (24)	79.2 (19)
% (N) Single parent	18.9 (10)	17.2 (5)	20.8 (5)

Notes: Full-scale IQ = was assessed with the Dutch versions of the Wechsler Preschool and Primary Scale of Intelligence (Wechsler, 1997) or the Wechsler Intelligence Scale for Children (Wechsler, 1991, 2005), % Single parent = percentage of children living with one parent, % Two parents = percentage of children living with two parents.* Significant difference observed between persisters and desisters in age at childhood assessment ($t(51) = 2.968, p < .05$).

experience of the childhood gender identity, the gender-related preferences and behaviour, body image and developing sexuality at specific moments in the adolescents' development. Furthermore, we tried to gain insight into similarities and differences between the persisters and desisters with regard to their psychosexual development.

Method

Participants

Between January 2000 and January 2007, 198 children (< 12 years of age) were referred to the Gender Identity Clinic at the Amsterdam VU University Medical Centre (VUmc). Out of these 198 children, 53 adolescents were selected to participate in this study. The criteria which led to the selection of these adolescents were: (1) the adolescent's age was 14 years or above, (2) the adolescent had been diagnosed with a GID in childhood, and (3) the adolescent was competent in the Dutch language (See table 1 for demographic background information).

Twenty nine of these 53 adolescents (54.7%) reapplied for treatment to the Gender Identity Clinic during adolescence between the ages of 12 and 14, and requested medical treatment (sex reassignment by means of hormone treatment and surgery). These adolescents were subsequently diagnosed again with GID and considered eligible for treatment (puberty suppression with GnRH analogues first, cross-sex hormone treatment after the age of 16, and surgery after 18 (for details on treatment see Cohen-Kettenis & van Goozen, 1998; Cohen-Kettenis, Delemarre-van de Waal & Gooren, 2008). The other 24 adolescents (45.3%) did not reapply for treatment at the Gender Identity Clinic during adolescence. As the Amsterdam Gender Identity Clinic for children and adolescents is the only one in the country, we assumed that their gender dysphoric feelings had desisted, and that they no longer had a desire for sex reassignment.

All adolescents were approached, orally or in writing, to participate in the study. Based on the principle of saturation in information (Glaser & Strauss, 1967), 25 adolescents were interviewed. These 25 participants consisted of 14 adolescents (7 boys and 7 girls) who applied for sex reassignment at the Gender Identity Clinic in adolescence (*M* age 16.0, range 14–18) and 11 adolescents (6 boys and 5 girls) who had no further contacts with the clinic after childhood (*M* age 15.72, range 14–18).

Instruments: biographical interview

Guided by clinical observations and the present literature on persistence and desistence of childhood gender dysphoria and the sexual orientation outcome of gender dysphoric children (Bakwin, 1968; Davenport, 1986; Drummond, Bradley, Peterson-Badali & Zucker, 2008; Green, 1987; Kosky, 1987; Lebovitz, 1972; Money & Ruso, 1979; Wallien & Cohen-Kettenis, 2008; Zucker & Bradley, 1995; Zuger, 1984) a topic list for a semi-structured biographical interview was developed. The questions on this topic list focused on the perception and experiences of the adolescents with regard to the following four subject areas: gender identity and gender role behaviour / gender related preferences (*Can you describe how you behaved and felt when you were a child?, What were your favourite toys, the games you played, and who were your playmates?*), sexual orientation (*Did you ever fall in love? Can you describe to whom you felt attracted and how you dealt with falling in love and dating?*), periods of increase/decrease or stability in gender variance (*Did your feelings ever changed about being a boy or a girl? Can you describe your feelings in this period?*), and physical development (*Can you describe how you experienced your body as a child? How did you experience the anticipation of physical change during puberty?*). These topics were explored with the adolescents, starting in their childhood years, and ending with their present situation.

Procedure

The study was approved by the Medical Ethics Committee of the VUmc. All participants and their care-givers gave informed consent. Participants were interviewed by the first author. The interviews were held either at the Gender Identity Clinic of the VUmc (all persisters and 3 desisters) or, if the adolescents did not want to travel to Amsterdam, at their homes (8 out of the 11 desisters). The interviews lasted approximately 60 to 70 minutes and were digitally recorded.

Data management and analyses

All interview data were transcribed verbatim. The transcripts were reviewed and analysed by the first author using the method of open coding and using the qualitative analysis software package ATLAS.ti v5.2. Subsequently, coding categories were generated based on the aims of the study and the themes that emerged in the first interviews. A random sample of 5 transcripts was cross-coded by an independent expert to check for inter-coder agreement. The coding categories and discrepancies that arose from the cross-coding procedure were discussed and adjusted during regular expert meetings, consisting of two researchers and one researcher clinician. During the second phase of data analysis, the generated codes were applied to all transcripts.

By comparing the created categories between each transcript, the developmental trajectories for adolescents, for whom the childhood gender dysphoria persisted or desisted into adolescence, and differences between boys and girls, were identified and described. In this article, the childhood years of all adolescents will be described together, as they are very similar. The development into

adolescence of persisters and desisters will be described separately. In the descriptions of the developmental trajectories illustrative quotes are presented from the interviews.

Results

Presentation of gender variance in childhood

Persisters and desisters appeared to have experienced only minimal differences in childhood gender variant expression. Both groups of boys and girls reported very similar gender related interests and preferences. All boys played with girls, liked playing with feminine toys, liked girls' games, and disliked masculine toys and activities such as soccer, rugby and playing with cars and action figures.

♂ Persister #1

I always played with girls' stuff and I dressed up as a girl. I sometimes borrowed my sister's dress and had a furry sheet, which I tied on my head, pretending I had long hair.

In contrast to the preferences and interests reported by the boys, the girls had clearly masculine interests and preferred activities such as soccer, playing sports games on the computer, climbing trees, building huts, and getting into mischief with other boys. The girls distinctly indicated a dislike for typical feminine play (e.g., dressing up, playing 'house') and preferences (e.g., dolls).

♀ Persister #6

The girls played with Barbie dolls, wore dresses and they gossiped. I never gossiped, I usually decapitated Barbie dolls, when I got them, and threw them in the dustbin. I played soccer, wore blue jeans, and played with marbles. I played with the boys and I was always in the company of the other boys.

As for cross-dressing, the boys frequently cross-dressed at home and chose the feminine roles in dress-up play or school plays. However, dressing up as a girl primarily took place at home. None of the boys completely transitioned, that is they did not live in the preferred gender role on a daily basis (including a name change and change in pronouns). The boys were still treated as boys (be it a different type of boy) by other children. In contrast to the boys, the girls reported wearing boys' clothing all the time. Most of them also had boyish haircuts. None of the girls 'officially' transitioned by changing their name or informing other children that they wanted to be referred to as 'he'. However, as a result of their appearance and behaviour, virtually all the girls were largely perceived and treated like boys.

♀ Desister #5

If there was a new child in our school they always thought that I was a boy. The other children knew that I was a girl, but they still treated me like a boy. They even shortened my name by which it became a boy's name.

The way other children treated the interviewees in childhood, classmates as well as other peers, was somewhat dissimilar from child to child. However, in most cases classmates tolerated the gender atypical behaviour and interests of the children.

♂ Persister #2

My classmates have always been positive to me, they never teased me, I don't know why but in some kind of way they always accepted me for who I was and what I did.

♀ Persister #3

Most children were used to my boyish behaviour and how I looked. Nobody cared, they always accepted me as I was, nobody even asked about it.

Negative experiences were attributed more to children who were not familiar with them, than to their own classmates. These experiences consisted of teasing remarks about their behaviour, interests and the way they looked, or name calling (e.g., 'Jimmy is a girl' [to boys] or 'Anna is a boy' [to girls]). Boys were primarily approached negatively by other boys, whereas the girls were primarily approached in a negative way by other girls.

♀ Desister #5

I was always accepted by the boys. For them, I was one of them. But the girls accepted me less; they were always asking me if I were a boy, or why I acted like a boy. That was especially hard because I did not know what to answer. I don't know why I behaved like I did. I just wanted them to see me as a boy.

♂ Desister #1

I was much more girlish in behaviour compared to the other boys, they thought I was abnormal and teased me about it. For example, when I wanted to go to the men's room they stopped me; they said I had to go to the girls' washroom because I was not a real boy.

With regard to gender identity and gender discomfort, both persisters and desisters reported feeling indifferent about their gender identity in early childhood (around the age of 5), or they did not remember giving it much thought. Later in childhood, around the age of 6/7, both the persisters and the desisters said they started to identify with the other sex, to express a wish to be the other sex, and to feel uncomfortable with being a boy or a girl (gender dysphoric). Although both persisters and desisters reported cross-gender identification, their underlying motives appeared to be different. The persisters explicitly indicated they felt they *were* the other sex, the desisters indicated that they identified as a girlish boy or a boyish girl who only wished they were the other sex.

♀ Persister #6

In childhood (and still), I had the feeling that I was born as a boy. I did not 'want' to be a girl. To myself I 'was' a boy, I felt insulted if people treated me as a girl. Of course I 'knew' I was girl, but still, in my view I was not.

♀ Desister #11

I knew very well that I was a girl, but one who wished to be a boy. In childhood I liked the boys better, the girls were always niggling. I was tough and wanted to be as tough as the boys.

With regard to body satisfaction, both the persisters and desisters indicated that, around the age of 5, they rarely experienced hatred or aversion towards their own bodies. Only later on they did start to feel more uncomfortable with their bodies. A marked difference between the reports of persisters and desisters was that the persisters reported that the discomfort was caused by the fact that their bodies did not conform to their feelings, whereas the desisters did not report this. The persisting girls reported primarily desiring a penis, the persisting boys in contrast wished to get rid of their penis.

♀ Persister #4

When I was standing in front of the mirror I did not very much mind seeing my genitals, but it made me very sad that I did not have a penis.

The desisting adolescents indicated that the bodily discomfort was more the result of the 'wish' for another body in order to fulfil the desired social gender role than a strong desire for other genitals. Still, a few desisting girls reported that they occasionally had expressed the wish for a penis; they remembered that they had tried to urinate in a standing position or put objects in their underwear to create the illusion of a penis and/or testicles. None of the desisting boys, however, reported memories on pretending that they did not have a penis.

♀ Desister #11

My mom told me that I wanted to have a penis, I sometimes put marbles in my underwear and at the beach I once put a shell in my swimming trunk, as if I had a penis.

The adolescent development of persisters

Starting around the age of 10, and for the subsequent years, the persisters indicated that their cross-gender preferences and behaviour and their gender identity remained stable, but that their dysphoric feelings intensified. The intensification of gender dysphoria was attributed to three factors; (1) Certain changes in their social environment, (2) The anticipation of and/or actual physical changes during puberty, (3) The first experiences of falling in love and discovering their sexual orientation.

With regard to the change in the social environment, most adolescents felt that the roles of boys and girls became more distinct by the time they became adolescents. Before the age of 10 (grade 1 to 6 in the Netherlands), the social differences between boys and girls were experienced as relatively small, as boys and girls did play with each other, and gender roles were less salient. Around the age of 10/11 (grade 7 in the Netherlands), the social distance between boys and girls was considered to increase gradually. Particularly in this phase, the boys increasingly desired to express their femininity: to dress more feminine, to use make-up, to let their hair grow, to have their names changed, to behave more feminine, and to live entirely in the female role.

♂ Persister #12

When I became older, I felt more and more uncomfortable when I had to change clothes in company of the other boys in gym class. When we went to camp with school I desperately wanted to sleep together with the girls, but I was not allowed to. That was a difficult confrontation. I became more and more aware of how different I was from the other boys.

Likewise, the girls experienced an intensifying discomfort with the female role and feminine interests, and they became more and more convinced of their male gender identity.

♀ Persister #3

I played in a mixed soccer team, with boys and girls. When I turned 11, I had to go to an all-girl soccer team. Because I did not want that, I stopped playing soccer altogether.

The following quote illustrates the intensifying discomfort regarding the female role in a girl who had tried to live as an ordinary girl for more than a year.

♀ Persister #9

To prevent being bullied at my new high school, my mom advised me to wear girls' clothes and stimulated me to let my hair grow. In a way, I hoped and expected that my feeling of being a boy would change and that I would start to feel more like a girl. But from the day I went to my new school, I constantly questioned this whole plan. I was totally not interested in the things the girls were talking about, and felt very uneasy. I felt more and more unhappy with the role I was living in. I wanted to be with the other boys and talk about soccer. I wanted to be one of them.

Parallel with the period of change in their social environment, some adolescents experienced pubertal body changes, whereas others started thinking about these new developments. These anticipated or actual physical changes were often agonizing and highly distressful. The girls were intensely worried that, in the future, they would look like a boy with breasts. The boys by contrast had disturbing thoughts about the possible growth of their Adam's apple, the breaking of their voice, and the growth of facial and body hair. Both boys and girls indicated that thinking about their bodies developing in the 'wrong' direction generated destructive thoughts and created or intensified feelings of aversion towards their bodies.

♀ Persister #11

It was terrible, I constantly wanted to know whether I was already in puberty or not. I knew about the puberty blocking treatment and I wanted to be in time. I really did not want to have breasts, I felt like, if they would grow, I would remove them myself. I absolutely did not want them!

♂ Persister #10

I noticed the Adam's apple of my brother, and an uneasy feeling stole upon me. If I would get an Adam's apple like his, I did not want to live.

Between the ages of 10 and 13 (during the period of change in their environment and their pending puberty), and in contrast to the earlier years, other children, primarily classmates, started to question and criticize the adolescents' gender variant behaviour. It was around this time, at the end of elementary school or at the start of high school, that most of the persisters officially informed others (classmates, family, and neighbours) about their gender dysphoria and their planned transitioning. Most of the girls were already wearing boys' clothing all the time, and could be more open in their behaviour before their official transitioning. Therefore, it was primarily the boys who

experienced this ‘coming out’ as a relief. Moreover, they reported that their transition ‘confirmed’ that they were one of the girls. They experienced the transition also as an affirmation of their female gender identity. The transitioning itself usually was a gradual process. The boys often let their hair grow, started to wear girls’ clothing and, only later on, adopted a girl’s name.

♂ Persister #12

When I started to have longer hair, and was allowed to wear girls’ clothes, it felt like shedding my skin. I could finally be who I am. At last, I was on the right track.

♂ Persister #8

It was not an abrupt change, I changed gradually. In grade 8 we finally told my classmates about my feelings and informed them that it was named ‘gender dysphoria.’ It was not a big surprise; they already knew me as a boy with girl’s preferences and behaviour.

The social environment generally reacted positive to and accepting of their ‘coming-out’. In elementary school, as well as in high school, classmates were often accepting, and at worst, they tolerated it. As in childhood, bullying, teasing or negative remarks primarily came from peers who were less or totally not familiar with them, and were often informed about the adolescent’s gender dysphoria by gossip. If at all, active bullying was primarily done by boys to both gender dysphoric boys and girls. Girls were reported to ignore rather than bully or tease the adolescents. Reactions of parents and other relatives were predominantly positive and supportive. They considered the ‘coming-out’ of the adolescents to be an understandable explanation for their extremely masculine or feminine behaviour in the previous years. Unexpectedly, there was less understanding among unfamiliar adults than among peers.

♂ Persister #10

All my classmates and friends reacted positively. It may sound as if it was a real coming out but most of the children knew me well enough to have an idea how I felt. Everybody was used to my behaviour and interests, ‘coming out’ was giving it a name.

♂ Persister #1

My classmates reacted positively, in a way they were not surprised. But they asked me a lot of questions, which was sometimes difficult. It is hard to explain to somebody how you feel, if you feel like having the wrong body.

The actual physical changes during puberty usually resulted in hatred of and disgust with their bodies. The girls described extreme distress because of the experienced or expected growth of their breasts and the start of menarche.

♀ Persister #7

When I was 13, I started to menstruate and my breasts started to grow. I hated it! If we would have had a train station in our town I would definitely have jumped in front of a train. I didn’t go to school anymore, lost my friends and became totally withdrawn.

♀ Persister #7

As soon as puberty started, I could no longer be myself. A boy does not have breasts. As a child it didn't matter that much, boys and girls don't differ except that boys have a penis, and girls don't. But the way I was changing was very wrong. I couldn't hide it anymore.

As a result of the increased aversion towards their bodies, the girls became insecure with themselves. Most of them started to wear loose-fitting clothes and avoided confrontation with their body (i.e. they showered less often, avoided looking at mirrors). For the majority of the boys, puberty started later. By the time puberty set in, they reported an intensified aversion towards their genitals and disgust because of the growth of facial and body hair. This made them insecure too and frequently led to social withdrawal. Especially the actual physical changes made both boys and girls feel obstructed in their lives, and resulted in a strong desire for medical treatment (e.g., puberty blocking hormones, cross-sex hormones, and surgery).

♀ Persister #13

At the time my breasts started to grow, I wanted to hide them. I always tried to wear loose shirts. I felt so insecure that I didn't want other people to see me. So I frequently skipped school and they suspended me. Then I became even more withdrawn.

♀ Persister #3

Before puberty started, I felt physically a boy, but when my breasts started growing, I felt more like a mutant. Suddenly, a lot of things were not possible anymore, like swimming.

With regard to sexual attraction, all persisters reported feeling exclusively attracted to persons of the same natal sex, which confirmed their gender identity as they viewed this attraction as a heterosexual attraction. They did not consider themselves homosexual or lesbian.

♀ Persister #3

I always fell in love with girls, I never felt attracted to boys. A number of children concluded that I had to be a lesbian, I thought about this but I never experienced it this way. I was aware of having a female body but in my feelings I was a boy, so I was not a lesbian but a heterosexual, just like the other boys...

In spite of the fact that their feelings confirmed their gender identity, the majority of adolescents kept their sexual attractions to themselves. Both boys and girls indicated that, as a result of fear of rejection, they did not speak about their sexual feelings to others, and did not try to date someone. Furthermore, most adolescents felt uncomfortable responding to romantic gestures from others. The discrepancy between their body and gender identity made them anxious about coming too close to others, emotionally and physically.

♂ Persister #2

At times I felt attracted to boys, but immediately tried to restrain the feeling. I always did so, I just don't want to be in love or be confronted with others being in love with me right now.

♀ Persister #9

I always consciously suppressed romantic feelings; first I want to have my own feelings organized. Of course, it is impossible to suppress these feelings entirely but I do try; I just don't want to date now.

The adolescent development of desisters

In desisters, the gender discomfort gradually decreased over the course of grades 7 and 8 (age 10 to 13). Both boys and girls indicated that their changing interests and friendships, and the physical changes during puberty made the gender discomfort diminish and eventually disappear. The desisters also reported that their first experience of falling in love and awareness of sexual attraction were factors that resulted in the disappearance of their gender dysphoria.

As for their preferences for gender-related activities and friendships, the desisters indicated that their gender atypical interests did not necessarily evaporate, but that they just became more receptive to gender typical interests. As a result, they developed more affiliation with children of their own gender, and more often engaged in same-gender friendships.

♀ Desister #2

In grade 7 (10 years) I started to use make-up, not really make-up, but eyeliner, and I wanted longer hair. At the end of grade 8 (11/12 years), I told my mom I wanted different clothes, not a dress but feminine looking shirts and jeans. I also started horseback riding with other girls, but at the same time I still played soccer in a team with boys. Later, I moved to a girls' soccer team.

♂ Desister #10

When I was younger, my interests were more feminine and I never had friendships with boys. I did not like boys' stuff. When I was about 11, I became more interested in boys' stuff and became friends with a boy for the first time. I started to seek the company of the other boys more often.

Parallel to the process of becoming more receptive to gender congruent interests, the boys indicated that the urge to cross-dress gradually decreased.

♂ Desister #4

I stopped cross-dressing because I did not enjoy it anymore. On earlier occasions I actually felt like a girl during cross-dressing, but when I was 11 or 12 I did not feel like that anymore. I actually did it later occasionally, but for fun, together with my sister, not because I felt like a girl.

The girls gradually developed a preference for a more feminine clothing style, but they generally did not like to wear dresses. Instead, they preferred feminine t-shirts and girls' jeans and let their hair grow. However, in contrast to the boys, who primarily had cross-dressed at home, and had always been seen as boys by the other children, the girls reported that they wore boys' clothing all the time, and had frequently been seen and treated like a boy. As a result, a number of girls indicated that going back to their actual gender role was a troublesome and arduous process. They had often been afraid of getting teased or excluded by their classmates if they would revert to their

original gender role. One girl even struggled with her feelings to go back to her actual gender role for nearly two years.

♀ Desister #5

I gradually wanted to be like the other girls. When I saw girls wearing earrings and bracelets, I wanted to wear them too, but I couldn't because I looked like a boy. I struggled with this feeling for maybe 2 years. I was scared the other kids would tease me. I very much wanted to start over again and I couldn't wait to go to high school.

All girls reported feeling significant feelings of shame for their earlier boyish appearance. They were actually afraid that, later on, other children would learn about their masculine childhood, and make fun of their previous gender variance.

♀ Desister #11

At high school, I wanted to make a new start. I did not want people to know that I had looked like a boy, and had wanted to be a boy in childhood. At home, all my pictures had to be removed.

♀ Desister #5

At high school, there was one classmate from elementary school who told the other kids that I was 'living' like a boy in elementary school. Although I wanted to make a fresh start, I had no possibility to do so. Everybody knew about me and teased me. I really had looked forward to finishing off that period, but they did not give me a chance.

The second factor the desisting girls associated with their decrease in gender discomfort was the feminization of their bodies, primarily the growth of their breasts. At first they reported that this was unpleasant. They felt embarrassed and uncomfortable, and felt it interfered with their freedom to move. However, before long their feelings shifted in a positive direction and they desired even more physical feminization.

♀ Desister #11

Before puberty, I disliked the thought of getting breasts. I did not want them to grow. But when they actually started to grow, I was glad they did. I really loved looking like a girl, so I was glad my body became more feminine.

In contrast to the girls, the boys did not report distress because of their very first pubertal body changes, but even reported it to be a positive experience. They enjoyed their first sexual urges and commenced with masturbation. For them, these physical explorations were related to a decreased dislike of their bodies and the disappearance of the desire to be a girl.

♂ Desister #10

Around the age of 12, I discovered that there were a lot of things you could do with your body... in a sexual way, I mean. I became aware that this was a good side of being a boy, something that would not be possible if I were a girl.

♂ Desister #3

How do you describe it? At a certain moment, I noticed that I could do things with my genitals; since then I lost interest in becoming a girl or a woman.

At the time that they became aware of their changed gender-related preferences, even before the physical changes, the desisters reported having their first crushes, and they fantasized about sexual partners. All girls felt exclusively attracted to boys. This made them question their “masculine” feelings. It felt like the attractions weakened their cross-gender identification.

♀ Desister #11

I began to play more often with the girls instead of only with the boys. In our class, children started dating and I realized that, just like the other girls, I happened to like the boys in another way than before.

The reported sexual orientation of the desisting boys was more varied. Two of the boys felt exclusively attracted to boys, three felt attracted to both boys and girls, and one boy reported feeling exclusively attracted to girls. The awareness of being sexually attracted to boys only or to both boys and girls caused some confusion in most of them.

♂ Desister #8

It was confusing to feel sexually interested in both boys and girls. I hoped it would eventually disappear, just like the feeling of being a girl...but it didn't.

♂ Desister #3

Being attracted to both boys and girls, I constantly thought, what will be my future? I could not figure out what I wanted. I felt insecure about how people would react to me and think of me if they knew.

Regardless of sexual orientation, the boys' experiences of falling in love almost always resulted in a decrease of cross-gender feelings, as it emphasized their feelings of being a boy. However, one boy stated:

♂ Desister #1

When I was 11 or 12, I had my first sexual fantasies and realized I was attracted to men. In my fantasies I regularly experienced myself as a woman having sex with a man. At certain moments this felt like a relief, I was who I wanted to be in my fantasies. But when I came back to reality this felt awkward and it confused me, it was like living in two kinds of reality, as if I had two genders.

♂ Desister #1

I truly felt uncomfortable to discover that I was attracted to boys and not to girls. The confusion became stronger when I fell in love with a boy. That implied for me that I was a girl from the inside. I therefore tried to fall in love with girls, but I did not succeed.

At the time of the interview, Desister 1 (18 years of age), still desired to be a woman, with breasts and the possibility of giving birth. However, he considered himself 50% male and 50% female. Over the years, he gradually became used to this feeling, and started accepting his ambiguous gender identity. He distinctly stated that he did not experience any sexual arousal at the thought of being a woman, and that he still would not seek sex reassignment (e.g., hormones and/or surgery). With regard to cross-dressing, he reported that he no longer had felt the urge to cross-dress since the start of puberty. He seemed to experience his 'femaleness' entirely inside himself. He identified himself as a homosexual male. His sexual orientation had not changed over time.

At the time of the interviews, the other desisters identified completely with their natal sex and indicated that they did not expect any change regarding their gender identity, or the desire to cross-dress in the future. Four boys reported identifying as heterosexuals, and one of the boys identified himself as a homosexual. Interestingly, the three boys who were attracted to both boys and girls when they were between the ages of 10 and 13, and identified as heterosexual at the time of the interview, still reported some sexual attraction to males, but more to females in sexual fantasy. All girls identified as heterosexuals, but again, two girls reported occasionally feeling sexually attracted in fantasy to girls.

Discussion

The current qualitative study aimed at gaining a better understanding of the adolescent development of gender dysphoric children. We were particularly interested in factors that might have been associated with the increase or decrease (or disappearance) of their gender dysphoria, and their awareness of their sexual orientation. Through structural comparisons between the stories of persisters and desisters, we identified a period between the ages of 10 and 13 (grades 7 and 8, the end of Dutch elementary school) that seemed to be crucial in their developmental trajectories. In the perception of these adolescents, persistence or desistence of childhood gender dysphoria was related to three factors.

First, they regarded the changing social environment as important. Between the ages of 10 and 13, the social distance between boys and girls was considered to gradually increase. As a result, the already existing preferences for other-sex friends of persisters increased, and so did the discomfort with their gender role. Contrary to expectation, in the desisters, the gender variant preferences and behaviours did not strikingly decrease. Rather, the greater social distance between the sexes that they experienced seemed to create a desire to add gender typical interests to their repertoire, as if, at the very last moment, they did not want to 'miss the boat'. The desisters indeed started to experience a stronger affiliation with children of their own gender and more often initiated and enjoyed same-gender friendships.

Second, the adolescents attributed their change in feelings to the anticipation of, and actual body changes during, puberty. For both the persisting boys and girls the anticipated feminization or masculinization of the body during puberty created severe distress and concerns about the future. At the beginning of puberty, the aversion towards their bodies intensified immensely, resulting in insecurity and social withdrawal. Especially because of the actual physical changes, the persisters expressed a strong need for sex reassignment. For the desisters the anticipated feminization or masculinization of their bodies was not explicitly reported as particularly distressful. Although, the desisting girls felt initially somewhat insecure because of their breast growth, these feelings soon changed into a desire for more feminization of their bodies. The desisting boys all reported their first body changes as a positive experience. Their feelings of discomfort towards parts of the body and the wish to be a girl decreased by the time they became aware of the pleasant aspects of their emerging sexuality.

The third factor that seemed to be associated with the persistence or desistence of childhood gender dysphoria was the experience of falling in love and sexual attraction. The persisters, all attracted to same- (natal) sex partners, indicated that the awareness of their sexual attractions functioned as a confirmation of their cross-gender identification as they viewed this as typically heterosexual. For the desisters, however, the experience of falling in love resulted in questioning their cross-gender identification regardless of the sex of the partners they felt attracted to.

Although these three factors may have steered the gender typical interests, behaviours and the gender dysphoria in most adolescents in a persisting or desisting direction, a complete remittance of gender dysphoria did not occur in all desisters. In one 18 year-old male in particular, some feelings of gender dysphoria were still present at the time of the interview, be it that he stated that he felt only 50% 'female'. It is likely that he belongs to the group of gender variant persons who have received increasing attention in the literature (e.g., Bockting, 2008; Bornstein, 1994; Ekins & King, 2006). These persons experience some incongruence between their experienced gender and assigned gender and/or natal sex, but they do not necessarily have a complete cross-gender identity (Diamond & Butterworth, 2008). Not every gender dysphoric person seeks complete sex reassignment (see for an overview Cohen-Kettenis, 2009) or wants to live fully in the role of 'the other gender'. It would be worthwhile to follow his development much longer, to see whether his ambiguous gender feelings were just part of a passing phase (either into desistence or persistence) or whether they remained a stable characteristic of this person.

The high bi/homosexual outcome in our study corresponds with the findings from the prospective quantitative literature on gender dysphoric children (Bakwin, 1968; Lebovitz, 1972; Money & Ruso, 1979; Davenport, 1986; Drummond, Bradley, Peterson-Badali & Zucker, 2008; Green, 1987; Kosky, 1987; Wallien & Cohen-Kettenis, 2008; Zucker & Bradley, 1995; Zuger, 1984). However, there were differences between persisters and desisters. All persisters reported feeling exclusively, and as long as they could remember, sexually attracted to individuals of the same natal sex, although none of the persisters considered themselves 'homosexual' or 'lesbian,' but (because of their cross-gender identity) 'heterosexual.' As for the desisters, about half of them were sexually attracted in fantasy to individuals of the same natal sex. Yet, all girls and most of the boys identified as heterosexual. The difference between the reported sexual attractions and identities may be related to the timing of the 'coming-out'. The literature shows that the average age of the first feelings of same-sex attraction is generally during puberty and before the age of 18 (e.g., Barber, 2000; Herek, Cogan, Gillis & Glunt, 1998; Rust, 1996). However, the moment at which men and women identify and come out as gay, lesbian, or bisexual generally lies above the age of 18, at the end of adolescence or in their early twenties (e.g., Barber, 2000; Herek, Cogan, Gillis & Glunt, 1998; Rust, 1996). Since the adolescents in our study were between 14 and 18 years, one may expect that, in the future, the number of desisters reporting a homosexual or lesbian identity will increase.

The question arises whether there are indications in childhood (< 12 years of age) that might be predictive for the different trajectories. Although both persisters and desisters were quite similar in their gender atypical interests, preferences and behaviours, there was also a difference. This seemed to be subtle and belong to the area of underlying motives rather than overt behaviour. The persisters attributed their gender dysphoria primarily to the discrepancy between their body and their gender identity and a true longing for having a different body. The desisters, however, indicated that their desire to have the body of the other sex (if present at all) or the desire to be the other sex was more related to the opportunity to fulfil the preferred gender role, than to a true aversion against their bodies per se. These accounts imply that the presence of body discomfort may contribute significantly to persistence or desistence of childhood gender dysphoria. However, prudence is called for in this conclusion, since the differences between persisters and desisters could also be an effect of

biased recall. For instance, it is conceivable that the reports of the desisters were coloured by shame about their childhood gender variance, or that the persisters inferred intense anatomical dysphoria in childhood only because they had experienced these feelings later on. Nevertheless, given the clinical importance of identifying indicators for persistence and desistence of childhood gender dysphoria, future research should focus on factors underlying cross-gender identification and bodily discomfort in childhood more thoroughly.

Clinical implications

Based on the significance most adolescents attribute to the period between the ages of 10 and 13, we suggest that clinicians should concentrate clearly on what happens in this phase of development. It is recommended to specifically address the adolescents' feelings regarding the factors that repeatedly came up as relevant in our interviews (i.e. the effects of the changing social environment, the response to anticipated or actual puberty, and the emerging romantic/sexual feelings and sexual partner choice), before any medical steps are taken (e.g., to suppress further pubertal development).

As for the clinical management in children before the age of 10, we suggest a cautious attitude towards the moment of transitioning. Given our findings that some girls, who were almost (but not even entirely) living as boys in their childhood years, experienced great trouble when they wanted to return to the female gender role, we believe that parents and caregivers should fully realize the unpredictability of their child's psychosexual outcome. They may help the child to handle their gender variance in a supportive way, but without taking social steps long before puberty, which are hard to reverse. This attitude may guide them through uncertain years without the risk of creating the difficulties that would occur if a transitioned child wants to revert to living in his/her original gender role.

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