

A developmental model of gender identity course based on Hamburg sample of children with gender dysphoria

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Abstract

Aims: *There are few data concerning first signs and developmental trajectories of people with gender variant behaviours and this paper aims to describe them in a clinical sample. Method:* *This paper presents a chart review of 44 children and adolescents assessed for gender dysphoria in Child and Adolescent Psychiatry and Psychotherapy, at the University Hospital Hamburg, Germany. I used information from these charts to reconstruct the course of cross-gender behaviour and identity in these patients from birth up to the time of assessment and organised it in a model. I looked into the pattern of development being representative of this sample and examined continuity/variability within individuals over time. Results:* *First signs at behavioural level appeared in most cases since the beginning and were consistently reported during preschool years (84%). A prior period of gender typical behaviour before onset of cross-gender behaviour was rare. Conclusion:* *A particular finding in this clinic based sample is that gender identity expressed around the age of 3-5 years was not reversed later in life. There was a common pattern of development in majority of cases: first signs in kindergarten age and*

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strongly re-emergence around puberty, which might have implications in referral times of this group in the clinic.

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Gender Identity is a sense of oneself in relation to males and females, how one fits with gender. *Gender dysphoria* in DSM-V (DSM-V, 2013), known as *Gender Identity Disorder* (GID) in ICD-10 (WHO, 2010) is a relatively rare condition of atypical gender development in which there is a psychological perception of self as masculine or feminine which is incongruent with sex assigned at birth (De Gascun et al., 2006). Or occasionally the individual might identify to some category other than male or female (DSM-V, 2013). The essential diagnostic feature is the child's pervasive and persistent desire to be (or insistence that he/she is of) the other-sex to that assigned, together with an intense rejection of the behaviour, attributes, and/or attire of the assigned sex (WHO, 2010).

Compared with other child psychiatric disorders, gender dysphoria has a relatively low prevalence (Cohen-Kettenis et al., 2003). There are no data of exact figures of gender identity in childhood. There are estimates of this prevalence being around 1% (cited by Korte et al., 2008). In one behavioural genetics study, the prevalence is estimated to be 2.3% in 314 non-referred twins of ages 4-17 years old (Coolidge et al., 2002). In Germany would be affected about 280 children every year as cited by Vetter 2007. Although the exact prevalence of GID is unknown, the prevalence of cross-gender behaviour in general is considerable. Depending on the study, the numbers range anywhere from 2.6% to 6% for young boys and 5% to 12% for young girls (Möller et al., 2009). Di Ceglie (2014) reports increase in referrals from 1989 to 2012 of this population in Gender Identity Development Service of London.

Theories of gender development include psychoanalytic theories, gender essentialism, environmental theories and cognitive theories. For a review of gender development theories see Schechner, 2010. Reports on first signs of nonconforming gender identity are almost missing. Parents, the first observers, facing the experience of having a child with gender dysphoria hope is just a phase. Clinicians usually met them after the establishment of cross-gender signs. In general children/adolescents with GD have a long history of cross-gender behaviour before being referred and assessed at the clinic. Fausto-Sterling (2012) argues that the existing clinical theories are underdeveloped and urge that clinicians take a dynamic developmental view of gender identity formation into account. Children are usually referred to the clinic when they are able to

verbalise their desires. A stated desire to be the other sex is usually much later than the expression of cross/nonconforming-gender signs in behavioural level. This expression is not correlated with a certain age, but in a case by case basis. Some of these individuals report having had a desire to be of the other gender in childhood that was not expressed verbally to others (DSM-V, 2013). Only 11% of the children/adolescents referred in the service for gender dysphoric children and adolescents at University Clinic Hamburg Eppendorf voiced to their parents, siblings and/or teachers the wish to be the other sex at a very young age 3-5 years old (Lama-Gjergji V., 2011). Cohen-Kettenis and Pfäfflin (2010) recommends that it should be investigated for potentially relevant specifiers as onset age. There are two broad trajectories for development of gender dysphoria: early onset and late onset. *Early-onset gender dysphoria* starts in childhood and continues into adolescence and adulthood; or, there is an intermittent period in which the gender dysphoria desists and these individuals self-identify as homosexual, followed by recurrence of gender dysphoria. *Late-onset gender dysphoria* occurs around puberty or much later in life (DSM-V, 2013).

While extensive theoretical and empirical work has been invested in understanding the mechanisms underlying the trajectories of normative gender development (Schechner, 2010), most of this work has primarily focused on stages of gender development (i.e Kohlberg is focused on the cognitive ability of child to acquire gender concepts and sex roles), developing of gender stereotypes, interests, activities and preferences, prejudice. Understanding the changes that correspond with the passage of time is a hallmark of developmental studies, including the study of gender development. The few longitudinal studies of gender typing that exist have paid relatively little attention to the issue of stability (Martin and Ruble, 2010). Regarding clinical studies very few elucidate aspects of developmental processes, i. e. gender identity variability/stability across age. Martin and Ruble (2010) in their review of patterns of gender development stress that it would be of great interest in future research to examine the stability and trajectory of gender typing among children at the extremes, such as tomboys or girly girls. They conclude that the study of individual differences in gender typing may be more productive than has recently been thought. Two studies are to be mentioned in this respect: Drummond et al. (2008) and Steensma et al. (2010). This research can provide additional insight in this topic. This paper feature the assessment of children and adolescents consulted in the Clinic for gender identity problems of Child and Adolescent Psychiatry and Psychotherapy, at the University Hospital Hamburg-Eppendorf with attention to onset of cross-gender behaviour and following gender identity developmental trajectories. We argue that these qualitative data provide insight into gender identity development in this population, which is often difficult to ascertain

through empirical study and the stability of subject's gender identity over time. Research questions were aimed in depicting a possible pattern of development for gender dysphoric children and adolescents: 1. How became noticeable first signs of gender dysphoria, at which age did they appear for the first time? Onset age describes the very first time when gender dysphoria appears in behavioural level and/or is experienced by the child. 2. Which was the course of symptoms? How did evolve signs from birth up to the time of referral at the clinic? 3. Is it a prior period of conformity with sex assigned at birth for a cross-gender child? 4. Is it an in-between period of conformity with sex assigned at birth for a cross-gender child? The research design was by using information from these charts to reconstruct the course of cross-gender behaviour and identity in these patients. Our approach to answer the research questions being asked was by self-designing a graphic describing the course of each case.

Method

Subjects

At the University Medical Center Hamburg-Eppendorf, Department of Child and Adolescent Psychiatry and Psychotherapy, a "Clinic for Children and Adolescents with Gender Identity Disorder" is provided in cooperation with the Institute for Sex Research and Forensic Psychiatry and the Clinic of Endocrinology Hamburg. The sample of the study consisted of all patients' charts consulted and assessed in the Clinic for gender identity problems of Child and Adolescent Psychiatry and Psychotherapy, at the University Clinic of Hamburg between 2006 and 2010. The participating group in the study consisted of 44 gender dysphoric cases, with age range 4 and half up to 18 year old, 18 males and 26 females (Mean=13.3; SD=3.7).

Research design

Information from medical files was taken out of each case from birth up to the time of assessment at the clinic, with aim of a comprehensive self-designed checklist. A child and adolescent psychiatrist rated the materials from charts in the Hamburg clinic searching information related to the research questions: onset age, reported signs of gender dysphoria and respective age, course of identity during development span, signs of conformity/non-conformity with sex assigned at birth and respective age. The information regarding child development was mostly reported by parents. Because in most cases clinicians had been careful in writing reports in a sort of systematic anamnestic fashion

(actual concerns, developmental history, etc.) and many cases had a large file (25% of the sample were hospitalised) we were able to identify information we were interested. Parents who had more than one child were sensitive to report the gendered patterns of behaviour of their child in terms of gender typical vs. –atypical behaviour. As parents reported in terms of behaviour (for example onset was described by parents as cross-dressing), information from children/adolescents was useful in eliciting the cognitive component of gender dysphoria. Inconsistencies were discussed with a member of the team, who was also the clinician who knew the cases.

Data were analysed using qualitative content analysis methods. To capture the long-life developmental trajectories (course) of gender identity four categories (see Table 1) were constructed by deduction-induction reasoning. Data on gender/cross-gender behaviour fit in the following categories: a. unspecific signs; b. presumed cross-gender; c. cross-gender; d. behaviour typical to the assigned sex. Categories were defined according threshold level for ICD-10 symptoms. The first three categories include cross-gender behaviour in three different levels of intensity, from the subtle observations of parents (unspecific signs) to the meeting of criteria for gender identity disorder in ICD-10 (cross-gender). “*Presumed cross-gender*” category differs from the “*cross-gender*” category based on the intensity of reported symptoms. When symptoms reported in a certain period of time did not meet all ICD-10 criteria, the behaviour fell in the presumed category. This category is included for coding a time period reported as latent. There was a strong presumption that the full criteria will ultimately be met for GID, but not enough information is available or signs were at low intensity. The researcher determines that gender development in this period of time is compatible with prior cross gender history; nevertheless the symptoms might be experienced from children or their parents as less intense. On files there is not enough information reported to include the behaviour of the child/adolescent in full blown “*cross-gender*” category, however certainly there is no gender typical behaviour and there is not inconsistent or contradicting information.

A self-designed model (Fig. 1) provided a convenient format for organising and communicating the reconstructed developmental trajectories (from birth up to time of assessment) of Gender Identity of single cases, and for capturing the shared pattern of the sample we worked with. The model is illustrated in Graphic 1 and the definitions of categories are explained at Table 1.

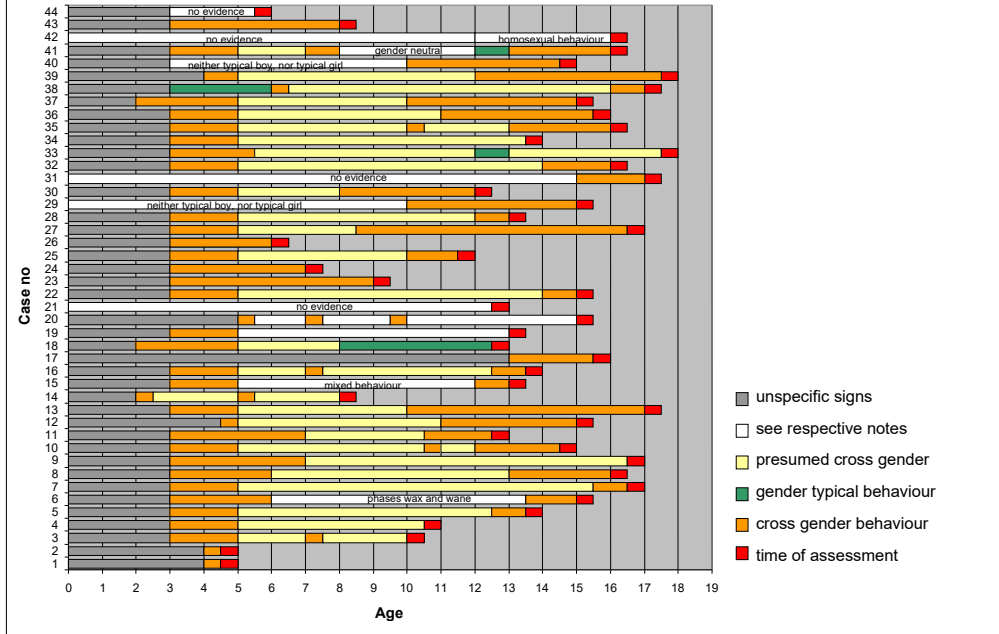
TABLE 1: Description of Categories

DEFINITION OF CATEGORIES	EXAMPLES: DESCRIPTIVE INFORMATION OF CHARTS
<p>Unspecific signs: As unspecific signs are defined parental feelings of the child being since early on different from siblings, the child was perceived by parents as a particular child or has shown a mild aversion of typical gender behaviour i.e. a boy who is easy crying, etc.</p>	<p>Notes of an assigned male child (by mother report): A. has always been different from his siblings. His brothers were genuine boys, rough-and-tumble played, played football. A. showed at the opposite a soft attitude. He was quite as a baby, had a big grin. Even at the ages of 2-2 ½ years old he never liked to sit in dirt. At a very young age of the child mother had a feeling that he was in the wrong body, despite he didn't show direct signs at that time. He was rather "a girl"; he was never, even as baby a boy.</p>
<p>Cross-gender: Cross-gender definition includes report of symptoms, which meet the full ICD-10 criteria for the disorder.</p>	<p>Notes of an assigned male child (by mother report): As a child D. preferred to play with Barbie dolls, liked to have his room painted in pink, and liked girl dresses. D. has always been different as a child and since the age of 7-8 years old played around mostly with girls.</p> <p>Notes of an assigned female child (by mother report): Mother reported an impressive situation when the kid was 3 years old. She came home from a travel abroad with beautiful clothes. D. has reacted with disgust and dislike when she unpacked the presents and immediately left. In kindergarten D. didn't like that children played boys versus girls. She showed at that time confusing reactions, because she didn't know which group to join. At the age of about three to four years, mother has realised that D. was different from other children. She even thought at that time, if she had probably "autistic features".</p> <p>Notes of an assigned female (adolescent report): D. herself confesses to be in the wrong body since long time, but it has been intensified in the recent years. D. recalls kindergarten time when she saw that boys have a penis. She had assumed till that point that she will also get one as she grows older. It was told by kindergarten teacher, that this would not happen. With about five or six years D., who was called at that time with her birth name, renamed herself with a boy name. Since about 13 year olds she insisted not to be called anymore with her birth name. Since 14 years old she understood she was transsexual and that it would not change.</p>

<p>Presumed cross-gender: This category is included for coding a time period reported as latent. There is a strong presumption that the full criteria will ultimately be met for GID, but not enough information is available or signs are at subthreshold level. The researcher determines that gender development in this period of time is compatible with prior cross gender history; nevertheless the symptoms might be experienced from children or their parents as less intense.</p> <p>There is not enough information on medical files to include the behaviour of the child/adolescent in full blown "cross-gender" category, however certainly there is no gender typical behaviour and there is not inconsistent or contradicting information.</p>	<p>Notes of an assigned male (adolescent report):</p> <p>A. remembers himself that this matter has been developing gradually, maybe since he was 5-6 years old. When he was young he was rather shy and it made a "click" in his head at about the age of 7 years old: he has been thought he was not a boy. It was funny to make it clear with himself, at the same time it made him happy. As a boy he feels unhappy. However, when he enrolled school he had other things in mind for a long time and he repressed those thoughts until the fourth-fifth grade. At the age of about 10 years old he preferred again to be different. Girls had been started to make up and A. liked it. At the age of 10-11 years old he confessed it for the first time to his older sister and at the age of 13 years old he confessed it to his mother.</p>
<p>Behaviour typical of the assigned sex: The parent or child evidences a time period when he/she has shown behaviour which is typical of the assigned sex.</p>	<p>Notes of a biological female report:</p> <p>In the sixth grade she had a "feminine" phase, she tied her hair and had worn appropriate female clothes.</p> <p>Notes of a biological female report:</p> <p>Since many years dominated the inner feeling to be a boy. She had never thought something different. Despite that she undertook adaptive efforts. For example she didn't want to be noticed from her schoolmates and even had a phase around sixth-seventh grade, in which she looked as a girl, and even was dressed in pink at that time.</p>

We checked signs at an interval of half a year. When behaviour was in the same coding times were merged. Colours were used as indicators of categories continuing during a time frame: grey area represents the very early unspecific signs reported by parents on behavioural level, yellow and orange are both cross gender phases accordingly latent and full-blown picture. Signs at the time of assessment represented by the red colour are intensely cross gender. The green colour in the graphic represents those cases, which experienced in a certain period of time behaviour typical of the sex assigned at birth.

Fig 1: Onset and developmental pattern of cross gendered behaviour



Results

Most of children/adolescents asked since when did they feel to belong to other gender were reported to answer in a same fashion “Since I ever thought”. Before the age of 2-3 years old parents noted and reported unspecific signs, which couldn’t be classified as cross-gender ones. We describe them in Table 1. First signs of Gender Identity became noticeable from parents by behavioural expressions during preschool years. Most of children displayed at that time typical behaviour of the other sex (cross-dressing, preferred cross-sex roles in make-believe play, participated in the stereotypical games and pastimes of the other sex), rejected gender stereotypical toys and clothes, showed marked aversion toward their body (i.e. boys wanted to cut penis). From 5-6 years old to entering the adolescence (11-12 years old) a latent phase was reported by children and their parents, their voiced being in continuum with their other-gender identity, but they experienced being less overwhelmed compared to their toddlerhood and adolescence and also showed more adaptive efforts to conform to assigned sex roles. Signs in time of assessment at the clinic (roughly half a year follow up for each subject) were intensely cross gender. Looking at Fig 1, the most common pattern is early cross-gender, followed by presumed cross-gender, followed by a re-emergence of cross-gender in adolescence.

In general children/adolescents with GD had a long history of cross-gender behaviour before being assessed at the clinic. Onset of cross-gender behaviour for most cases with GD (84%) was the toddler/preschool years. Gender Identity Disorder had an early onset in 84% of cases (37 out of 44), that is children showed cross-gender behaviour during preschool years. Only three cases (roughly 7%) had a late onset (cross-gender behaviour in ages 10-13 years old). These children showed a neither typical boy nor typical girl behaviour (outside the gender binary) or unspecific signs during preschool years and childhood. A prior period of gender typical behaviour before onset of cross-gender behaviour was rare. When it happened after the onset of cross gender behaviour had a tendency to be a transitory phase. Only one child showed assigned-gender typical behaviour (in ages 3-6 years old) before cross-gender period (starting at 6 years old). Three other children had an in-between phase of assigned-gender typical behaviour; they had shown cross-gender signs before and after this phase. The course of Gender Identity in cases studied was irreversible and there was a common pattern of development in majority of cases: first signs in kindergarten age and strongly re-emergence around puberty.

Discussion

Concerning age when first signs appear there are very few or not at all research data in literature. In normative samples early studies suggested that labelling and understanding of gender may not emerge until about 30 months of age, but more recent studies have moved the age of understanding gender identity and labelling downward (Martin and Ruble, 2010). In our sample onset of cross-gender behaviour in majority of cases corresponded to the developmental time period in which most typically developing children begin expressing gendered behaviours and interests. The trajectory of gender identity development in this gender variant sample is the same as normative gender trajectory. Gooren, 2002 cites that gender identity/role becomes largely fixed around the age of three years, thus showing a parallel with other steps in the sexual differentiation process in that once their critical period has passed, the nature of gender identity/role can not be reversed. Hamburg data are accordable with the above concept. They indicated that first signs of Gender Identity Disorder appeared in most of the cases (84%) during preschool years and the course of Gender Identity in cases studied was irreversible beyond this age.

Before the age of 2-3 years old parents noted and reported unspecific signs (see table 1) which became strongly marked in behavioural level during preschool years. These findings are consistent with one by Fausto Sterling (2012), who suggests

that by 18 months a transition to symbolic representation and the beginning of an internalisation of a sense of gender can be detected and consolidation is quite evident by 3 years of age.

Our findings of no reversibility in most of cases are not totally consistent with the prospective study of Drummond et al (2008), who provided information on the natural histories of 25 girls with gender identity disorder. At the assessment in childhood (mean age, 8.88 years; range, 3-12 years), 60% of the girls met the Diagnostic and Statistical Manual of Mental Disorders criteria for GID, and 40% were subthreshold for the diagnosis. At follow-up (mean age, 23.24 years; range, 15-36 years), 12% were judged to have GID or gender dysphoria. Regarding sexual orientation, 8 participants (32%) were classified as bisexual/homosexual in fantasy, and 6 (24%) were classified as bisexual/homosexual in behaviour. The remaining participants were classified as either heterosexual or asexual. Drummond et al note that girls who were more cross-sex typed in their childhood behaviour more likely to be gender dysphoric at follow-up. Steensma et al. (2013) found a link between the intensity of gender dysphoria in childhood and persistence of gender dysphoria, as well as higher probability of persistence among natal girls. They concluded that intensity of early GD appears to be an important predictor of persistence of gender dysphoria. In this respect, should be kept in mind that children and adolescents in our study belonged to a clinical group and the studied cases might be more persistent and severe than nonreferred children with GID. It can be that there are children and adolescents with cross Gender Identity, who desist and therefore are not presented in the clinic. Gender dysphoria remits from childhood to homosexuality in adolescence and adulthood. Cross-gender fantasies and behaviors in childhood appear to be largely predictive of a homosexual sexual orientation in adulthood (Wallien and Cohen-Kettenis, 2008). Even in normative samples (Golombok et al., 2008) results indicated that children who were most gender typed at age 3 and half continued to be so at age 8 years old.

There was noticed a pattern of development in majority of cases: first signs in kindergarten age and rebound around puberty. The intensity lessened over a period of time from about 6 to 11 years. The shifts among states (from being cross-gender to presumed cross-gender) make us think about influencing factors. This latent form of gender typing in our opinion may be explained firstly by social ostracism, who applied to all cases. Children are trying to confirm to the social pressure. Many of them at this time are teased, bullied in schools and their parents have conveyed to them the idea that it is just a phase and they will overcome it in puberty. Social ostracism tends to arise during the early years of schooling and is often at a peak in middle childhood, with humiliating teasing by other boys (WHO, 2010). Secondly, there are no major developments of sexual characteristics until puberty. Body image dysphoria becomes more common as children with gender dysphoria approach puberty.

The results of this paper indicate that cross-gender behaviour is appearing early in life, thus showing a parallel with normative gender behaviour development. Gender variant children develop milestones of their gender identity at the same time as developing children who feel comfortable with sex assigned at birth. The form of gender typing that is paramount may vary at different phases of life (Martin and Ruble, 2010). The most common pattern noticed early cross-gender and strongly re-emergence around puberty might imply to peak times of referrals at the clinic.

A limitation of this work is that findings are couched in terms of the gender binary, because most of this sample was intensely cross-identified. There were few cases (see figure 1) who were not clearly positioned. The study was retrospective and time frames were not preselected, we fitted the information reconstructed from charts. Prospective studies with structured measurements and short time frames would be encouraged for more accurate results.

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