

Gender Dysphoria and Co-Existing Psychosis: Review and Four Case Examples of Successful Gender Affirmative Treatment

Julia H. Meijer, MD, PhD,¹ Guus M. Eeckhout, MD,²
Roy H.T. van Vlerken, MD,¹ and Annelou L.C. de Vries, MD, PhD³

Abstract

Purpose: Controversy exists as to if, and when, gender affirmative (GA) treatment should be offered to individuals with gender dysphoria (GD) and co-existing psychosis. Concerns exist regarding a high risk of misdiagnosing, regret afterward due to impulsive decision making, and deterioration of psychotic symptoms. This case series aims at extending the sparse literature on GA treatment in this population by identifying challenges in diagnosis and treatment and offering recommendations to overcome them.

Case Series: The authors present case descriptions of two transgender men and two transgender women in the age range of 29–57 years with a diagnosis of GD and a schizophrenia-related diagnosis. All had undergone GA treatment with a minimum follow-up of 3 years. The gender diagnosis was complicated by the fact that feelings of GD were only shared after the onset of psychosis, and GA treatment was hampered by the persistence of mild psychotic symptoms despite antipsychotic treatment. Close communication with the psychosis treating clinicians proved useful to address these problems. GA treatment was paralleled by a stabilization of psychotic symptoms, and adherence to and satisfaction with the therapy was high.

Conclusion: These case examples show that GA treatment is possible and safe in this vulnerable population.

Keywords: gender identity, healthcare barriers, psychiatric comorbidity, schizophrenia, transgender

Introduction

G

and suicidality) decreased as well (95% CI=56%–94% from seven studies).²

¹ Center of Expertise on Gender Dysphoria, VU University Medical Center, Amsterdam, The Netherlands.

² Department of Psychiatry, VU University Medical Center, Amsterdam, The Netherlands.

³ Department of Child and Adolescent Psychiatry, Center of Expertise on Gender Dysphoria, VU University Medical Center, Amsterdam, The Netherlands.

to a schizophreniform disorder, combined with experiences or beliefs with a gender dysphoric content are described. These experiences vary from those of someone with GD who wishes to pursue life in the other gender role to bizarre ideas such as having been castrated at birth, the latter of which is referred to in this article as a “gender themed delusion.” In only three of these case studies, the authors concluded that a GD diagnosis was co-existing with the psychotic symptoms.³⁸⁻⁴⁰ In the remaining 16 case studies, the gender-related experiences and beliefs were judged as “delusional pseudotranssexualism” or “secondary transsexualism,” that is, to be part of a psychotic process and GA treatment was not deemed indicated. In these individuals, gender dysphoric ideas had waned under antipsychotic treatment or a developmental history of gender incongruence was lacking. Four of these cases had still undergone hormonal or surgical GA treatment despite the lack of meeting criteria for a GD diagnosis, with unfavorable clinical outcomes.^{5,21,30,37} Only 1 out of 19 case studies reports on successful GA treatment in the face of co-existing psychotic symptoms.³⁸ This case series by Fisk describes three individuals whose psychotic symptoms decreased after prolonged living in the role of the experienced gender and hormonal treatment. The results of this case series contrast with the numerous case reports about misdiagnoses and unsuccessful outcomes, which may explain the reluctance felt by clinicians when faced with an individual with GD and co-existing psychosis.

In the meantime, there is clinical experience of the authors working in specialized gender identity clinics that GA treatment options for those meeting criteria for GD are considered in the case of all co-existing psychiatric illnesses, including psychosis. This article aims at extending existing knowledge about GA treatment in individuals with co-existing psychosis by describing individuals whom we have treated and focusing on the complexities that may be encountered in this specific population. By offering recommendations to overcome these challenges, we hope to lend support to the clinician who is consulted for GA treatment by an individual with past or present psychotic symptoms. The following research questions will be addressed:

1. Which complexities may be encountered during the diagnostic phase and how should they be addressed?
2. Which complexities may be encountered after the start of GA treatment and how should they be managed?
3. What is the outcome of GA treatment for this specific population with regard to risks that have been mentioned in the literature?

Case Series

For this case series, we included individuals with a DSMIV⁴¹ diagnosis of GID (all cases were diagnosed before DSM 5) and a co-existing primary psychotic disorder, defined as schizophrenia, schizoaffective disorder, or psychosis not otherwise specified, who had been treated at the Center of Expertise on GD of the VU University

Medical Center in Amsterdam. GA treatment had to consist of the administration of gender-affirming hormones whether combined with GA surgery or not. A prerequisite was that individuals had undergone the typical diagnostic procedure, which consists of regular sessions over a minimum period of 6 months, completing a psychological test battery, and a collateral history obtained from a family member or an acquaintance. For a detailed description of the diagnostic procedures, we refer to the baseline publication of the European network for the investigation of gender incongruence.⁴²

Moreover, to be able to report on outcome data regarding the efficacy and safety of GA treatment, we included people with a minimum follow-up period of 3 years since the start of hormonal treatment. GA treatment spanned from 2005 until 2015, and data were collected in spring 2015. Five individuals with primary psychotic disorder emerged who had been seen by three different psychiatrists. Subjects were contacted by phone to invite them to participate. One of them, a transgender man with a co-existing diagnosis of schizophrenia, declined cooperation by saying that he had been living as a man for more than 15 years to his satisfaction. He was grateful for the care provided, but thinking about his former life as a woman was too distressing for him, all of which was confirmed by his current psychiatrist. The other four individuals provided written and verbal consent to participate. All were still frequenting the VU Medical Center for somatic gender identity care (endocrinology/urology/gynecology). The participants provided written informed consent indicating that their case histories could be used in anonymized form. Data collection regarding psychiatric history, gender identity development, and GA treatment was performed through a study of the medical records. Subsequently, these data were presented in summarized form to the subjects in a face-to-face interview with their own psychiatrist and the first author to adjust them where necessary. In addition, these interviews were used to examine each individual's perspective on GA treatment. Participants were invited in open-ended questions to look back on their gender identity trajectory and asked whether there had been elements that had been either particularly burdensome or supportive to them.

Case 1: PP (57-year-old transgender woman; Caucasian)

Assigned male at birth, PP first felt the desire to be a girl at the age of 4 years, starting with “a warm sensation in her belly at the thought of wearing a skirt.” This longing became stronger over the following years, even though her outer appearances were typically boyish and her preferences in play were gender neutral. Pubertal changes starting at the age of 12 evoked great stress. She tried to suppress her feelings by displaying overt masculine behavior such as fanatic judoing, youth criminal acts, and womanizing behavior. Fantasies about cross-dressing as a woman became increasingly sexually arousing to her. In her twenties approximately, she started cross-dressing in

secret while masturbating at the same time. She realized, however, that pursuing her life in the female role would not be accepted by her dominant and dismissive father and she fled into the daily use of cocaine to which she became addicted. At the age of 23, she developed paranoid delusions and disorganized behavior for which she assiduously avoided psychiatric care for years, a period in which she neglected herself and was unable to work. At the age of 38 years, she was compulsorily admitted to a psychiatric facility due to aggressive behavior related to the psychosis and cocaine abuse. She was diagnosed with paranoid schizophrenia, as the psychotic symptoms persisted while abstaining from cocaine. Treatment with haloperidol in high doses resulted in a remission of psychosis. During this admission, she talked about her gender dysphoric feelings for the first time in her life to a psychiatric nurse.

At the age of 42 years, PP applied for GA treatment for the first time but dropped out of the diagnostic phase. The reason for dropout was that the gender team doubted her motivation, because she requested to undergo GA treatment without having to make the social transition, a period of time in which individuals live full-time in their preferred gender role. When PP was 44 years old, she engaged in intensive treatment by a psychosis outreach team, after which she adhered with her antipsychotic regimen and succeeded in abstaining from cocaine.

At the age of 50 years, she reapplied at the gender identity clinic, now with a more feminine physical appearance. After the intake appointment with a psychologist of the gender team, there was a delay in diagnostics of 9 months for unknown reasons. PP was subsequently transferred to a psychiatrist of the team, who concluded that GD persisted and seemed not to be related to her schizophrenia, partly because gender dysphoric feelings became more prominent as her psychosis waned.

Based on her psychotic vulnerability, phased treatment was decided upon, starting with antiandrogens solely for a year, followed by the addition of estrogen treatment for a second year. Meanwhile, PP experienced how the inner restlessness and strong drive to masturbate that she had felt for years declined. Her breasts developed to a B-cup to her satisfaction. Her family, especially her mother, had opposed the GA treatment from the outset, out of fear that this wish was delusional. When PP was referred for genital surgery, another family consultation was held to alleviate some of the mother's concerns. PP received a penile inversion vaginoplasty at the age of 55 years. Due to anxiety about the surgery, she was admitted to the medical psychiatric unit.

To date, 5 years after the start of GA treatment, PP has been satisfied with her feminine appearance, which is not sexually arousing to her anymore. Since she enrolled in psychosis treatment 13 years ago, PP has not experienced any psychotic decompensations. Mild paranoid beliefs have persisted, however, that are not related to her gender identity and do not affect her daily functioning.

The family history reports manic psychosis in her father. Somatically, PP has been treated for a sexually transmitted disease at the age of 20 years. PP has always been sexually attracted to women and has had three relationships that lasted *1 year and all of which occurred when she was in her twenties. Since this time, she has not felt the desire anymore to be in a romantic relationship.

Individual's perspective: PP feels that schizophrenia has been the result of a long-lasting feeling of uneasiness with her body that she has been unable to talk about for a long time. She believes that GD, combined with the flight into cocaine, triggered her psychoses. Both GD and psychosis are associated with a feeling of alienation in her view. In her words: "haloperidol brought me back to reality with a shock, while GA treatment brought me back into my healthy self more gradually." Regarding the initial dropout from the diagnostic phase, she explains that her reluctance to initiate the social transition had not been a question of motivation but of fear. Despite her strong wish to live as a woman, to go shopping at a women's department with her overtly masculine physical appearance was too big a step for her back then. In retrospect, she says that if someone could have accompanied her during the social transition, this would have been of great support.

Case 2: ZJ (38-year-old transgender man; Caucasian)

Assigned female at birth, ZJ recalls that the longing to live as a boy dates back to the age of 4 years. He did not want to wear typical girls' clothing, preferred to play with boys and sturdy girls, and engaged in gender-neutral activities such as hiking and horseback riding. He was an introverted child who always experienced difficulties fitting in with his peers. He felt there was no use in complaining about his gender dysphoric feelings, because he believed that all girls would prefer to be boys. Real suffering started at the onset of puberty with a disgust toward his developing breasts and a feeling of filthiness during his monthly period, which made him withdraw from social interactions. At the age of 23 years, as a student living by himself, ZJ developed his first acute manic psychotic decompensation that had been preceded by a year-long severe depression. His symptoms consisted of paranoid, religious and grandiose delusions, visual and acoustic hallucinations, and affect lability, for which he was diagnosed with schizoaffective disorder. ZJ enrolled in intensive ambulatory psychosis treatment but due to a low tolerance to both classic and atypical antipsychotics, he discontinued all prescriptions within the first months of use. He was psychiatrically admitted six times in the following 8 years due to imminent or full-blown psychotic episodes.

At age 29, he talked about his gender incongruent feelings for the first time in his life to his psychiatric nurse. One year later, after getting used to the idea of GA treatment, he applied to the gender identity clinic with a gender neutral appearance. The diagnostic phase proceeded too slowly, according to him, with months passing without an appointment, reflecting a considerable delay due to several circumstances.

At age 32, 2 years after applying to the gender identity clinic, ZJ experienced another psychotic decompensation for which he was psychiatrically admitted and started on lithium combined with haloperidol, resulting in a quick remission of psychosis. After this psychotic episode, the psychiatrist from the psychosis outreach team contacted the gender identity clinic to explain how they had witnessed a clinical improvement in ZJ during his social transition over the past years. The psychiatrist stated that the gender dysphoric feelings were persistent and independent from the psychotic complaints, whereas a further delay in diagnostics was seen as a great source of stress and a possible trigger for renewed psychosis.

Subsequently, ZJ was transferred to a psychiatrist of the gender identity clinic and considered eligible and ready to start with androgen treatment. He succeeded in quitting smoking and lost 5kg, both requirements for GA surgery. He received a mastectomy at the age of 35 years. At age 36, he received a laparoscopic hysterectomy and a colpectomy, which was complicated by a severe hemorrhage 4 days post-surgery. He has been referred for metoidioplasty, but has decided to postpone it until a more stable period after finishing his studies. Since the switch to lithium and haloperidol that coincided with the start of GA treatment 6 years ago, ZJ has been free of psychosis.

There is a history of depression in his mother and her family members; schizophrenia is present in a cousin on the mother's side. ZJ has always felt attracted to men and has had two serious relationships during late adolescence.

Individual's perspective: ZJ believes that he was born with GD and a vulnerability to psychosis, but that he might not have developed psychosis without the stress related to his gender identity. Antipsychotics and lithium never influenced his gender incongruent feelings, but androgen treatment did make him feel more self-assured and less prone to new psychoses. ZJ experienced gender-themed delusions and hallucinations. To him, psychosis is "a mirror of your most bizarre self." The inclusion of a life-consuming issue such as gender incongruence in his psychoses was, therefore, logical to him. During psychotic decompensation, he was convinced that he was the last woman on earth and experienced visual hallucinations of having scars on his breasts. At the isolation ward, he had to take off his breast-binder and he had to exchange his clothes for a dress-like safety cloth, which was interpreted by him as the medical team wanting to transform him back into a woman. Psychiatric admissions were very stressful to him due to the lack of the staff's knowledge about GD.

When he suffered severe post-surgical hemorrhage, he was alone in his home and called an ambulance just in time. Looking back, however, he says that he had almost refrained from calling for help, based on a lack of trust in his own judgment and the fear of not being taken seriously with his history of psychosis. For this reason, he recommends a prolonged post-surgical observation in a hospital or rehabilitation facility for individuals with co-existing psychosis and little social support.

Case 3: FV (56-year-old transgender woman; Caucasian)

Assigned male at birth, FV had a preference for playing with girls and dolls from the age of 7 years, which was discouraged by her parents. She liked to dress in her sister's clothes and, after angry reactions from her father, she would do so hidden on the rooftop of their house. During puberty, she developed a hatred toward her male physical features. The conscious wish to be a girl was present from the age of 14, but she refrained from talking about her feelings due to the anticipated disapproval of her family. She almost put an end to her life twice at *16 years of age.

During her twenties, FV received crisis interventions due to suicidal behavior, auto-mutilation (e.g., of her chest), and depression. At that same time, she had episodes during which she went outside dressed in women's clothing to dirty herself with mud. At the age of 31 years, FV developed progressive psychotic symptoms consisting of hallucinations, paranoid thoughts, and disorganization for which she was diagnosed with paranoid schizophrenia.

At the age of 33 years, she spoke for the first time about her gender dysphoric feelings during a psychiatric admission after the clinical staff had seen her cross-dressing in secret. One year later, she applied for gender identity care for the first time while she was still living in the male role. The gender team concluded that she most likely suffered from a disturbance in early identity development, resulting in transvestitism, hypersexuality, substance abuse, and parasuicidal behavior.

For diagnostic purposes, it was proposed to treat the hypersexual behavior first by suppressing her libido with antiandrogens combined with behavioral therapy. This proposition was stressful and disappointing for FV, and she dropped out of care. For the next 16 years, she was treated with several antipsychotics that were effective, but her non-adherence resulted in a relapsing-remitting course of schizophrenia. She led a vagrant life with self-neglect and suffered from impulse control problems (alcohol misuse, gambling) and suicidal attempts. At the age of 50 years, she entered intensive psychosis treatment for the first time at a psychiatric rehabilitation facility. One year later, she started her social transition process and shared her feelings with her family.

At the age of 52, FV reapplied for gender identity care after she had transitioned socially and improved clinically. It was concluded that GD and schizophrenia were separate diagnoses. Due to the psychotic vulnerability, an extended hormonal phase of 3–4 years was agreed on instead of the usual 1 year. However, after 2 years, FV was granted surgery due to the drastic clinical improvement that had paralleled her feminization. This decision was made in close dialogue with her psychosis treating psychiatrist. To date, however, no surgery has been performed due to FV's concerns about the associated risks, difficulties to give up her nicotine addiction, and doubt about whether it will improve her already strong feelings of femininity.

For 5 years, she has been free of psychotic and depressive symptoms, which she attributes to a stable housing situation, adherence with antipsychotics, positive

reactions toward her social transition, and the start at the gender identity clinic. There is no family history of psychiatric problems. Somatically, she has received a hip prosthesis after a fracture. FV identifies as a bisexual and had three sexual relationships with women when she was still living in the male role.

Individual's perspective: FV sees GD as being more fundamental than schizophrenia, as "something that has always been a part of her," whereas schizophrenia is perceived by her as a disease that overcame her. In her opinion, an important contribution to her psychotic decompensation was the disapproval of her family in reaction to her feminine expression and behavior. This ultimately led her to break away from the family. It was during a psychiatric admission that she was able to speak about her GD for the first time in her life. She experienced great relief from people listening to her express what she called "an explosion of suppressed feelings." She has experienced strong feelings of shame about presenting as a woman in public, but when she finally did, chronic feelings of inner restlessness waned. Without the help of her social worker, she could have never taken the step of social transition and coming out to her family.

Case 4: DV (29-year-old transgender man; Asian)

Assigned female at birth, DV has felt the desire to live as a boy as long as he can remember. As a toddler, he used to play with boys, refused to wear dresses, and was addressed as a boy by strangers. Gender-deviant behavior was, however, disapproved by his grandmother who took care of him. Psychiatrically, he experienced half a year of elective mutism after having moved from Asia to the Netherlands at the age of 3. He has experienced pseudo hallucinations from childhood onward that he interprets as being mostly comforting, paranormal experiences.

His body uneasiness increased from the age of 11 when puberty set in, but he did not dare to speak about it. He withdrew from social contacts, wishing that God had created him as a boy. At 16 years of age, DV experienced his first psychotic episode after a year of prodromal depressive symptoms for which he received antidepressants without improvement. His symptoms consisted of auditory, tactile, and visual hallucinations, delusions of reference with bizarre and grandiose content, and affect lability. He was diagnosed with schizoaffective disorder.

Shortly after the onset of psychosis, DV spoke about his gender dysphoric feelings for the first time in his life to his psychiatrist, because he could not keep it to himself any longer. He was treated with risperidone by a psychiatric outreach team. Due to the persistence of psychotic symptoms, he was psychiatrically admitted half a year later and achieved almost complete remission after a switch to clozapine.

At the age of 17 years, DV started the intake procedure at the gender identity clinic with outer appearances of a young man. Shortly after, he started to live by his male name. The gender team concluded, in close dialogue with his treating psychiatrist, that he met diagnostic criteria for

GD and that GD was a possible factor in the onset of his psychotic symptoms. He was approved to start androgens at age 19. After 1 year of hormonal treatment, a mastectomy and hysterectomy were performed. A metoidioplasty was performed at age 21, which was complicated by a urethra obstruction and a fistula. At the age of 24 years, he started to lose his hair for which he started finasteride.

When he was 25 years old, DV experienced his second and last full-blown psychotic episode after a stressful study trip and the cessation of antipsychotics on his own accord. Reinitiation of clozapine resulted in a quick remission of psychosis, and DV has been adherent with medication for the past 4 years.

Family history is significant for a mother who has had paranoid delusions and an addiction to alcohol, neither of which were treated. DV has always been attracted to women. Despite a strong desire, he has never been in a romantic relationship.

Individual's perspective: DV explained that he has had GD from birth as well as a vulnerability to developing psychosis. DV experienced gender-themed delusions during his psychoses. While still living in the female role, he had delusions of reference that everybody knew that he was born a boy. After his social transition, he heard a devil's voice saying "everyone can see that you are a girl." Since he has undergone GA treatment, he feels much more confident and copes better with psychotic symptoms. He says, "Auditory hallucinations address your biggest uncertainties so they have always addressed my gender issue and will continue to do so. The difference is that these voices hurt and distressed me at first, but now that I am in the right body I can ignore them."

The most important results regarding diagnostics, treatment, and outcome are summarized in Tables 1–3.

Discussion

These four case descriptions extend the sparse literature on experiences of GA treatment in individuals in whom a GD diagnosis is accompanied by a psychotic illness. We identified challenges in gender diagnostics and treatment and provided suggestions on how to address them. Moreover, we focused on the outcomes of GA treatment in relation to concerns that have been raised in the literature.

Our case histories revealed some important findings regarding outcomes that do not uphold the caveats about GA treatment in the face of co-existing psychosis. There was no association in any of our cases between GA treatment and an increase in psychotic symptoms. Decisions about GA treatment were considered thoroughly, there were no regrets, and adherence to treatment was high. Our results do not support reports that the effects of hormonal^{19,20} or surgical^{43,44} GA interventions may trigger psychosis. The one psychotic decompensation that showed a relationship with the GA trajectory occurred during a prolonged diagnostic phase in which the individual experienced distress and uncertainty. What we have learned from this case by talking about his perspective is that it was not the prolonged waiting per se, but the lack of

transparency about the reason for delay that was the most stressful. The stabilization of psychosis that we witnessed is consistent with results from one other case series.³⁸ Moreover, the fact that our cases had realistic

Dropout from diagnostic phase due to inability to initiate social transitioning alone or fear of being denied treatment

Communicate with worker; psychiatric social transitioning
In case of delay, be as trajectory

Table 1. Complexities and Recommendations in the Case of Co-I

<i>Complexities</i>	<i>Recommendations</i>
Feelings of gender dysphoria (GD) are reported to exist before the age of 12, but are first shared after psychosis onset. This may hamper differential diagnostics between GD and delusional gender confusion	Thorough process (e.g., postponing surgeries until a more stable period, or choosing the least risky surgical options) does not concur with some previous reports. ^{18,21} An article titled “Change of sex and collaboration with the psychosis” described a group of psychotic patients who wanted various body parts altered in addition to sex change surgery. ¹⁸ Some subsequent literature has repeated this assumption. ²¹ In our case series, we encountered none of these behaviors.
Individuals have gender-themed psychotic experiences that may complicate the diagnosis of GD, whereas individuals may be reluctant to share these out of shame or fear that this may hamper gender affirmative (GA) treatment	Evaluate held be psychobetween In case of realisti Gender-tl resolut Training discuss Apply sy psycho If family social use pi history
Parents/caretakers not available to provide collateral history due to disturbed family relations and/or skepticism in family members about the authenticity of GD	Several complexities were identified regarding diagnostics: (1) that gender dysphoric feelings were first revealed after the onset of psychotic or prodromal symptoms, (2) that gender themes were sometimes present in psychotic beliefs, (3) that family members were not always available to provide a collateral gender history, and (4) the risk of dropout from the diagnostic phase. The most remarkable similarity among our cases is that they all expressed their gender dysphoric feelings for the first time in life after they had entered mental healthcare for psychosis, a phenomenon that we can find in other case descriptions. ^{29,40} All of our cases recalled attempting to deal with a severe gender identity problem for all of their

Table 2. Complexities and Recommendations Regarding GA Treatment in the Case of Co-Existing Psychosis

<i>Complexities</i>	<i>Recommendations</i>	<i>Cases</i>
Mild psychotic symptoms persist despite antipsychotic treatment, resulting in reluctance to initiate GA treatment out of fear that psychotic symptoms will increase or that the patient is insufficiently able to provide informed consent	Phased treatment with longer intervals to monitor effects of 1, 4 social role change and hormones on psychosis Close communication with local psychosis clinicians about how they judge the patient’s understanding of and readiness for GA interventions	1, 4
Individual experiences stress around surgical procedures with increased risk of psychotic decompensation	Consider admission to a psychiatric medical unit instead of a 1–3 surgical ward for extra psychological assistance Consider an extended admission, especially when supporting network is limited	
Unhealthy lifestyle that is more common in psychosis (substance abuse; obesity) and forms a contraindication for surgery	Communicate with psychosis treating psychiatrist to see whether lifestyle training should be organized	4

Table 3. Possible Risks of GA Treatment in the Case of Co-Existing Psychosis and Outcomes in Our Cases

<i>Risks</i>	<i>Outcomes</i>	<i>Cases</i>
Hormonal treatment or perioperative stress may trigger or worsen psychosis	No psychotic decompensation in two cases during 7 and 4 years of followup, respectively, since start of gender trajectory One psychotic episode during 6 years of follow-up, possibly triggered by delay and uncertainty around diagnostics	1, 3 2

	One psychotic episode during 12 years of follow-up in response to an environmental stressor and with no relation to the start of hormonal treatment (6 years earlier) or surgeries (4 and 5 years earlier)	3
Individuals have more regret and unrealistic expectations of GA	No regrets regarding GA treatment or dissatisfaction with the results	1–4
Decisions about treatment being taken impulsively	Case postponed genital surgery for almost 2 years to contemplate (realistic) risks of incontinence and loss of sexual sensibility	1
	Case postponed surgery to a less stressful period in life	2
	Genital surgery is still being postponed based on doubt about its added value to the sense of femininity	3
	Less risky metoidioplasty was chosen over phalloplasty	2, 4
	No desire for mamma augmentation after hormonal treatment	1, 3
Insufficient adherence to hormonal and (post)surgical treatment	Good adherence to hormonal treatment	1–4
	In case of surgical complications, cases adhered with follow-up appointments	2, 4

lives, with first gender dysphoric feelings existing well before the age of 12. Thereby, they all fulfilled the criteria of “early onset” GD.¹ When trying to understand why gender dysphoric feelings had not been expressed earlier, our cases seemed to have been introverted characters during childhood and/or had a rearing environment in which gender incongruent behavior was discouraged or even punished. However, since the late time of articulating gender dysphoric feelings coincided with psychotic symptoms and a reliable collateral history was not always available, they could have been easily confused with individuals having “late onset” GD, or with individuals having delusional gender confusion.

To facilitate the diagnostic dilemma between delusional gender confusion and the persistent gender dysphoric feelings required for a diagnosis of GD, consultation with the patient’s psychosis treating clinicians proved to be of great importance. They could confirm that psychosis and GD were separate conditions and that the stress related to GD negatively impacted psychotic symptoms. Without this support, it is conceivable that these cases would not have been treated or even referred to the gender team. This was most relevant for our cases who experienced gender-themed delusions (case numbers 2 and 4). Reports that gender-themed delusions occur frequently in psychotic individuals who lack any history of GD have been used as an argument that these conditions should not be diagnosed together.^{6,16,36} One case story described that GA treatment was denied, because delusions were all focused on gender themes, despite the fact that there was a developmental history of GD.³⁰ Our cases displayed a clear difference between the bizarreness of delusional gender beliefs during psychosis and the realism of a felt incongruence between body and mind that persisted even after successful antipsychotic treatment. The shame and sense of secrecy that both cases felt about their gender-themed psychotic experiences—they only talked about it in retrospect—

emphasize the importance of healthcare professionals being trained to recognize and discuss gender-themed experiences.

Another important diagnostic tool in cases of co-occurring psychosis and GD is time. Our cases proved that the period of social transition may have to be extended until there is enough confidence that the person will be able to live in the experienced gender role. Likewise, treatment may need to be phased (e.g., solely anti-androgens before the start of estrogens) or longer hormonal treatment may need to be given before surgery. At the same time, treatment delay may cause additional stress for the individual with a risk of dropout or even clinical deterioration. Therefore, such steps in the decision-making process should always be explained carefully.

The complexities that we identified regarding GA treatment were (1) the fact that mild psychotic symptoms persisted despite antipsychotic treatment, (2) the perceived distress by individuals regarding surgical procedures, and (3) unhealthy lifestyles that formed a contraindication for GA surgery.

We believe that the most important recommendation for successful GA treatment in the context of psychotic symptoms is that individuals should be adequately engaged in a treatment facility with competence in the treatment of psychotic disorders. This was reflected in our cases, who were all under stable psychosis treatment elsewhere at the start of GA treatment. In addition to the fact that these psychosis treating clinicians may provide useful second opinions regarding GD as previously mentioned, collaborating closely with them may be a necessary condition for successful decision making regarding each step of GA treatment. Even in a small country such as the Netherlands, clients often have to travel for hours to the gender identity clinic due to the highly specialized nature of the care provided. Having psychiatric outreach care close to one’s own living environment enables the patient

to have more frequent consultations and be attended to more quickly in the case of acute situations that may be related to stress or side effects related to GA procedures.

Furthermore, psychosis treating clinicians proved extremely helpful in our cases during certain steps in GA treatment, for instance, by providing support for coming out to family, which can be a dreaded process, or in undertaking the practical steps of social transition. Moreover, they assisted patients to make needed lifestyle changes in preparation for surgery. While in our cases this assistance was provided by clinicians from psychosis outreach facilities, another option would be for the gender team to have access to life coaches or case managers who are trained to support transgender individuals who are unable to make the social transition alone. Remarkably, the importance of cooperating with the psychosis treating clinicians has not been noted in the literature. In case reports in which uncertainty existed about the differentiation between true GD and gender delusions, it was unclear whether consultation between gender identity clinicians and one's treating psychiatrists had taken place.^{6,29,39}

Finally, our case observations provide an opportunity to hypothesize about the relationship between GD and psychosis. Over the past decade, schizophrenia and other psychotic disorders have been increasingly associated with a disruption of the basic sense of self.^{45,46} The incongruence in one's basic sense of self, specifically the representation of one's own body, may have an overlap with the phenomenology of GD. Feelings of being alienated from one's body as a part of GD could contribute to a more profound loss of the sense of self, resulting in psychotic development. Why only a minority of GD individuals develop psychosis may be explained by the diathesis-stress model of schizophrenia.⁴⁷ Hence, we hypothesize that the bodily incongruence of GD may predispose an individual to a "psychotic" loss of self later in life, but only when the associated stress is high enough. All of our described individuals experienced considerable distress due to the inability to share their gender incongruent experiences with anyone, whereas talking about their experiences cultivated relief and clinical benefit. Our hypothesis is corroborated by evidence that disclosure of transgender feelings is a protective factor against developing all sorts of psychiatric disorders.⁴⁸

This study has some limitations. First, it is based on a small case series and, as such, may be not representative of all individuals with GD and psychotic symptoms. By focusing on individuals who completed GA treatment, we inevitably selected relatively well-functioning cases. Still, we identified challenges that may be illustrative for this specific population, including treatment delays, dropouts, and difficulties in acknowledging gender dysphoric feelings to oneself and others. Second, the psychotic diagnosis was not assessed with standardized instruments, although psychiatrists of the gender identity team (co-authors of this article) verified the diagnoses of the psychosis treating clinicians by a clinical examination. Third, the case-study

design implies that our recommendations sometimes rely on only one or two observations whereas we cannot draw conclusions about causality. So, although we observed a general clinical improvement after the start of transgender care, we cannot exclude the possibility that this was due to other factors.

Conclusion

These four cases demonstrate that safe and satisfying GA treatment is possible in the case of co-existing GD and psychosis, provided that both patients and caretakers invest effort and demonstrate patience and flexibility. Effort is required to carry out the necessary diagnostics when articulation of gender dysphoric feelings coincides with the onset of psychosis, to optimally engage family members, and to establish a close collaboration between transgender care providers and psychosis treating clinicians. Patience is needed to carefully observe the effect of each treatment step and to persist when more time is required. Finally, flexibility is necessary to reevaluate the initial treatment strategy at any time and to shape GA treatment to the individual's specific needs, whether this is perioperative psychiatric care or practical assistance with shopping during social transition. When such investments are made, individuals with co-existing gender incongruence and psychosis may be just as good candidates for GA treatment as anyone else. They are able to make decisions on timing and type of GA interventions, and satisfaction with and adherence to treatment is high. Moreover, psychotic symptoms may decrease concurrently with the gender dysphoric feelings.

More data on GA treatment, risk management, and prognosis in the case of co-existing psychosis are needed. Psychosis should no longer be an exclusion criterion in longitudinal studies on GA treatment. Moreover, follow-up data are required on those who drop out of care and who are being denied GA treatment. When this knowledge is translated into clinical guidelines, we will hopefully overcome barriers to quality healthcare in this small but important subgroup of the transgender population.

Acknowledgments

The authors are grateful to their four participants for their time and invaluable contributions to this study. This study received no specific grant from any funding agency.

Author Disclosure Statement

No competing financial interests exist.

References

1. American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)*, 5th ed. Washington, DC: American Psychiatric Association, 2013.
2. Murad MH, Elamin MB, Garcia MZ, et al.: Hormonal therapy and sex reassignment: A systematic review and metaanalysis of quality of life and psychosocial outcomes. *Clin Endocrinol (Oxf.)* 2010;72:214–231.

3. Gijs L, Van der Putten-Bierman E, De Cuypere G: Psychiatric comorbidity in adults with gender identity disorder. In: *Gender Dysphoria and Disorders of Sex Development: Progress in Care and Knowledge*. Edited by Kreukels BPC, Steensma TD, de Vries ALC. New York: Springer, 2014, pp 255–276.
4. Dhejne C, Lichtenstein P, Boman M, et al.: Long-term follow-up of transsexual persons undergoing sex reassignment surgery: Cohort study in Sweden. *PLoS One* 2011; 6:e16885.
5. Borrás L, Huguelet P, Eytan A: Delusional “pseudotranssexualism” in schizophrenia. *Psychiatry* 2007;70:175–179.
6. Baltieri DA, De Andrade AG: Schizophrenia modifying the expression of gender identity disorder. *J Sex Med* 2009;6: 1185–1188.
7. A´ Campo JM, Nijman H: Gender dysphoria and psychiatric symptoms. *J Nerv Ment Dis* 2016;204:558.
8. Hoenig J, Kenna JC: The nosological position of transsexualism. *Arch Sex Behav* 1974;3:273–287.
9. Randell JB: Transvestitism and transsexualism: A study of 50 cases. *Br J Psychiatry* 1959;2:1448–1452.
10. Lukianowicz N: Transvestite episodes in acute schizophrenia. *Psychiatr Q* 1962;36:44–54.
11. American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders, 3rd ed.* Washington, DC: American Psychiatric Association, 1980.
12. Coleman E, Bockting W, Botzer M, et al.: Standards of care for the health of transsexual, transgender, and gender nonconforming people, version 7. *Int J Transgenderism* 2012; 13:165–232.
13. Go´mez-Gil E, Trilla A, Salamero M, et al.: Sociodemographic, clinical, and psychiatric characteristics of transsexuals from Spain. *Arch Sex Behav* 2009;38:378–392.
14. Cole CM, O’Boyle M, Emory LE, Meyer WJ: Comorbidity of gender dysphoria and other major psychiatric diagnoses. *Arch Sex Behav* 1997;26:13–26.
15. Bower H: The gender identity disorder in the DSM-IV classification: A critical evaluation. *Aust N Z J Psychiatry* 2001;35:1–8.
16. A´ Campo J, Nijman H, Merckelbach H, Evers C: Psychiatric comorbidity of gender identity disorders: A survey among dutch psychiatrists. *Am J Psychiatry* 2003;160:1332–1336.
17. Giltay EJ, Gooren LJJ, Cohen-Kettenis PT, et al.: Comorbidity of gender identity disorders. *Am J Psychiatry* 2004; 161:934–935.
18. Meerlo JAM: Change of sex and collaboration with the psychosis. *Am J Psychiatry* 1967;124:263–264.
19. Faulk M: Psychosis in a transsexual. *Br J Psychiatry* 1990;156:285–286.
20. Mallett P, Marshall EJ, Blacker CVR: “Puerperal psychosis” following male-to-female sex reassignment? *Br J Psychiatry* 1989;155:257–259.
21. Campo JM, Nijman H, Evers C, et al.: Gender identity disorders as a symptom of psychosis, schizophrenia in particular. *Ned Tijdschr Geneesk* 2001;145:1876–1880.
22. Lande´n M, Wa´linder J, Lambert G, Lundstro´m B: Factors predictive of regret in sex reassignment. *Acta Psychiatr Scand* 1998;97:284–289.
23. Heylens G, Elaut E, Kreukels BPC, et al.: Psychiatric characteristics in transsexual individuals: Multicentre study in four European countries. *Br J Psychiatry* 2014;204:151–156.
24. Okabe N, Sato T, Matsumoto Y, et al.: Clinical characteristics of patients with gender identity disorder at a Japanese gender identity disorder clinic. *Psychiatry Res* 2008;157:315–318.
25. Bru´ne M: Delusional “Pseudotranssexualism” in Schizophrenic Psychosis (Wahnhafter “pseudotranssexualismus” bei schizophrener Psychose). *Psychiatr Prax* 1996;23: 246–247.
26. Caldwell C, Keshavan MS: Schizophrenia with secondary transsexualism. *Can J Psychiatry* 1991;36:300–301.
27. Commander M, Dean C: Symptomatic transsexualism. *Br J Psychiatry* 1990;156:894–896.
28. Manderson L: Gender identity disorder as a rare manifestation of schizophrenia. *Aust N Z J Psychiatry* 1994;35:546–547.
29. Banerjee A, Nizamie SH, Chopra VK, Bagchi DJ: Transsexualism: Onset after an acute psychotic episode. *Indian J Psychiatry* 1997;39:76–78.
30. Haberman M, Hollingsworth F, Falek A, Michael RP: Gender identity confusion, schizophrenia and a 47 XYY karyotype: A case report. *Psychoneuroendocrinology* 1975;1:207–209.
31. Jiloha RC, Bathla JC, Bawbja A, Gupta V: Transsexualism in schizophrenia: A case report. *Indian J Psychiatry* 1998; 40:186–188.
32. Puri BK, Singh I: The successful treatment of a gender dysphoric patient with pimozide. *Aust N Z J Psychiatry* 1996;30:422–425.
33. Scherrer P, Pelletier JC: From transsexualism to schizophrenia. *Ann Med Psychol* 1972;2:609–635.
34. Schwarz K, Fontanari AM, Mueller A, et al.: Neural correlates of psychosis and gender dysphoria in an adult male. *Arch Sex Behav* 2016;45:761–765.
35. Mayer C, Kapfhammer HP: Coincidence of transsexuality and psychosis (Koinzidenz von Transsexualitaet und Psychose). *Nervenarzt* 1995;66:225–230.
36. Chakrabarti N, Sinha VK, Parial A: Secondary gender identity disorder—a case report. *Indian J Psychiatry* 1999;41: 257–259.
37. Zafar R: Schizophrenia and gender identity disorder. *Psychiatr Bull* 2008;32:316–317.
38. Fisk N: Transsexualism rehabilitation. Five spectacular results. *Arch Sex Behav* 1978;7:351–369.
39. Bhargava SC, Sethi S: Transsexualism and schizophrenia: A case report. *Indian J Psychiatry* 2002;44:177–178.
40. Habermeyer E, Kamps I, Kawohl W: A case of bipolar psychosis and transsexualism. *Psychopathology* 2003;36: 168–170.
41. American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders, 4th ed., text rev.* Washington, DC: American Psychiatric Association, 2000.

42. Kreukels BPC, Haraldsen IR, De Cuypere G, et al.: A European network for the investigation of gender incongruence: The ENIGI initiative. *Eur Psychiatry* 2012;27: 445–450.
43. Childs A: Acute symbiotic psychosis in a postoperative transsexual. *Arch Sex Behav* 1977;6:37–44.
44. Van Putten T, Fawzy FI: Sex conversion surgery in a man with severe gender dysphoria: A tragic outcome. *Arch Gen Psychiatry* 1976;33:751–753.
45. Fuchs T: From self-disorders to ego disorders. *Psychopathology* 2015;48:324–331.
46. Ferri F, Costantini M, Salone A, et al.: Upcoming tactile events and body ownership in schizophrenia. *Schizophr Res* 2014;152:51–57.
47. Zubin J, Spring B: Vulnerability—A new view of schizophrenia. *J Abnorm Psychol* 1977;86:103–126.
48. Dhejne C, Van Vlerken R, Heylens G, Arcelus J: Mental health and gender dysphoria: A review of the literature. *Int Rev Psychiatry* 2016;28:44–57.

Address correspondence to:
Julia H. Meijer, MD, PhD
Center of Expertise on Gender Dysphoria
VU University Medical Center
PO Box 7057
Amsterdam 1007 MB
The Netherlands

E-mail: juliameijer80@gmail.com