Psychiatr. Pol. 2021; 55(1): 71–83
PL ISSN 0033-2674 (PRINT), ISSN 2391-5854 (ONLINE)
www.psychiatriapolska.pl
DOI: https://doi.org/10.12740/PP/OnlineFirst/112442

Transsexualism or psychotic disorder? A case study

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Summary

The aim of the paper is to analyze the case of a man suffering from paranoid schizophrenia who experiences delusions and hallucinations concerning gender change, and to present a short overview of the literature. The data presented in the case study were collected during a clinical interview, in the six-month diagnostic process. The interview was partly structured; the battery of tests were also used: MMPI-2, SCID-I, SCID-II, IPP, MoCA, and WAIS-R. A case study of a person whose birth-assigned sex was male but who identifies as female. In the diagnostic process, it turned out that he had delusions and hallucinations, which seem to have a dominant impact on the gender incongruence. The results of the tests seem to confirm the hypothesis that the diagnosis of paranoid schizophrenia was right. Taking into consideration the presented case study, it can be stated that, diagnosing transsexualism, it is vital to distinguish it from psychotic disorders.

Key words: transsexualism, gender dysphoria, psychotic disorders

Introduction

The process of diagnosing transsexualism constitutes a great challenge for mental health specialists, which seems to be confirmed by several cases described in the literature [1–6]. That is why it is especially important that, diagnosing a person who wants sex reassignment surgery, one has to distinguish problems related to gender dysphoria from psychic disorders, including psychotic disorders; some studies [7, 8] confirm a high frequency of the so-called pseudo-transsexual delusions in the clinical picture of schizophrenia.

The aim of the paper is to describe and discuss a case study of a person who wanted to undergo sex reassignment surgery due to experiencing psychotic symptoms, and to present a short overview of the literature.

Transsexualism/transgenderism

Transsexualism belongs to a spectrum of transgenderism, which may be defined as a sense of inconsistency between the gender assigned at birth and the one the person identifies with [9]. In the ICD-10, it is defined (F64.0) as: "A desire to live and be accepted as a member of the opposite sex, usually accompanied by a sense of discomfort with, or inappropriateness of, one's anatomic sex, and a wish to have surgery and hormonal treatment to make one's body as congruent as possible with one's preferred sex. […] For this diagnosis to be made, the transsexual identity should have been present persistently for at least 2 years, and must not be a symptom of another mental disorder, such as schizophrenia, or associated with any intersex, genetic, or sex chromosome abnormality" [10, p. 163].

In the recent ICD-11, 'transsexualism' has been replaced with the term 'gender incongruence of adolescence or adulthood' [11]. An important aspect of the introduced changes in this classification is demedicalization of transsexuality, and stressing the fact that any therapeutic activity is directed at the sense of gender incongruence, which may contribute to diminishing the stigmatization of transsexual/transgender persons. A similar tendency can be observed in DSM-5 by the American Psychological Association, in which 'gender identity disorder' has been replaced by 'gender dysphoria' [12].

The etiology of transsexualism/transgenderism has not been decided yet. Several psychosocial theories were formulated, which relate identification with gender different from the one assigned at birth, on the one hand with psychotic processes, and on the other hand with symbiotic identification with mother in transwomen, and with reinforcement of stereotypical behavior of the other gender [13]. Nowadays, however, among theories which dominate there are theories suggesting the impact of the change of sex hormones concentration in the prenatal period on the person's identification as a transgender individual [14], brain theories [15–17] and genetic-prenatal theories [18].

It is also difficult to estimate the occurrence of transsexualism/transgenderism in the population, because in many studies of the transsexualism/transgenderism different methodologies of group selection have been used. That is why there are differences in the number of transsexual/transgender persons [19, 20]. According to the World Health Organization, 1:30,000 and 1:70,000, respectively for persons assigned to male and female gender at birth [10].

Psychotic disorders and gender identity

Stusiński and Lew-Starowicz [2] distinguished 4 mechanisms which have an impact on gender identification problems caused by schizophrenia: (1) identity problems as a stressor which can cause schizophrenia symptoms to appear; (2) identity problems as a consequence of schizophrenia; (3) the common neurobiological background of schizophrenia and gender dysphoria; (4) the influence of schizophrenia-specific defi-

cits of mental functions on gender identity. In the first case, schizophrenia symptoms are explained within the framework of the 'diathesis-stress' model, in which identity construction problems resulting from the negative impact of family environment constitute one of the important stressors, which can activate schizophrenia in individuals vulnerable to it [2, 21]. In the second case, gender identity problems result from the course of schizophrenia, when the person falling into psychosis perceives in a distorted way not only the external reality, but also his/her own self-image [2]. In the third case, gender dysphoria and schizophrenia can be treated as neurodevelopmental disorders only in certain conditions [17]. According to Rajkumar [17] and Fontanari et al. [22], these are, common for the two, reduced levels of brain-derived neurotrophic factor; and brain changes in lateralization, gender dymorphism, and levels of sex hormones in the prenatal period [2]. In the fourth case, gender identity problems of the person suffering from schizophrenia may be affected by deficits of cognitive, emotional and social functioning in the pre-psychotic stage. It may influence the self-image construction, including the individual's gender identity [2, 17].

Psychotic symptoms concerning gender and its 'change'

Case studies provide examples of delusions and hallucinations (especially tactile and visual) whose content concerns gender and its 'change' [4, 23–25]. Richard von Krafft-Ebing was the first to describe them; he called them *metamorphosis sexualis paranoia* [26]. Borras et al. [23] distinguished 4 types of the so-called pseudo-transsexual delusions: (1) delusions of gender lack/gender neutrality; (2) delusions of not belonging to one's birth-assigned gender; (3) delusions of belonging to both genders at the same time; and (4) delusions of belonging to gender other than the one assigned at birth. 'Pseudo-transsexual' delusions intensify in psychosis and disappear after it resolves [27]. An additional element which makes it easier to distinguish delusional from non-delusional content may be dysphoric experiences related to a sense of gender and sex incongruence as well as suddenness of self-identification change.

Hallucinations related to gender and its 'change' are described in literature as tactile and visual hallucinations [23]. In Gittleson and Levine's study [7], 27% of examined patients diagnosed with schizophrenia experienced hallucinations concerning genitals; the authors related hallucinations concerning gender to the person's single status and the co-occurrence of hallucinations concerning genitals. Connolly and Gittleson [28] observed a relation between the co-occurrence of olfactory and gustatory hallucinations, and delusions concerning gender change.

Body changes initiated by individuals suffering from psychotic disorders

Veeder and Leo [29], on the basis of the analyzed cases, claimed that, in the group of people mutilating their peri-genital areas, the majority (49% of the participants) was diagnosed with schizophrenia spectrum disorders. The persons suffering from these

disorders more frequently performed penile self-amputation in comparison to the group of participants diagnosed with non-psychotic disorders, in which self-castration (removal of the testicles by an individual) and mutilation of peri-genital area dominated.

The impact of anti-psychotic pharmacotherapy on gender incongruence/gender dysphoria reported by persons diagnosed with schizophrenia

There are several case studies of patients suffering from schizophrenia and experiencing gender incongruence which showed the impact of pharmacotherapy on the problem. Commander and Dean [27] described the case of a 24-year-old man diagnosed with schizophrenia who for a year experienced gender change delusions and hallucinations (he claimed that he had the vagina instead of the penis). After two-month of administration of high doses of fluphenazine at two-week intervals, the declared sense of belonging to the other gender completely disappeared. Caldwell and Keshavan [30] described the case of a 30-year-old person whose gender at birth was determined as male. Since the age of 11, he experienced delusions and formal thought disorder, and withdrew from social contacts. Being a teenager, he started dressing like a woman; at the age of 17, he asked his family to address him with female forms. At the age of 20, he was taking hormone replacement therapy for a year and considered sex reassignment surgery. The administration of haloperidol decreased his desire for sex reassignment surgery. He was also taking trifluoperazine, fluphenazine and lithium, which significantly influenced his sense of gender incongruence. At the age of 30, he started taking 30 mg of clozapine per day. Since then, gender incongruence had decreased, but still existed.

Jiloha et al. [31] presented the case of a 19-year-old woman who was experiencing gender change delusions – she claimed that her clitoris is an underdeveloped penis, and wanted to undergo sex reassignment surgery. In everyday life she functioned as a male. After being diagnosed with schizophrenia, she was administered pharmacotherapy – 30 mg of trifluoperazine per day in three doses for half a year. After about two months, the psychotic symptoms concerning gender change disappeared, and the patient started to function as a female again. Manderson and Kumar [25] described the case of a 35-year-old person of female gender assigned at birth. Since the age of 20, she was being treated for paranoid schizophrenia, and since childhood she was suffering from traumas. She believed that after giving birth to her, her mother cut her penis and was giving her female hormones. After her mother's death, when she was 29, she started to believe that her body was returning to its 'original' male form; at the age of 32, she began to function as a male. On administering the flupenthixol decanoate therapy, 100 mg per week, her sex change delusions disappeared.

Campo et al. [32] described the case of a man who was taking hormone replacement therapy for years and underwent sex reassignment surgery. After psychotic decompensation, he was administered anti-psychotic therapy with neuroleptics. During the pharmacotherapy, the patient said that his sex reassignment surgery was a mistake.

Borras et al. [23] presented the case of a 40-year-old man, treated for paranoid schizophrenia for 22 years, who at the age of 35 underwent sex reassignment surgery; he wished it had not happened, he wanted to be able to change his genitals depending on the situation. The administered pharmacotherapy, 300 mg of clozapine per day, made the delusions decrease and the patient start to identify as a male. Zafar [33] described the case of a 40-year-old man diagnosed with schizophrenia who had gender change delusions. A relation was observed between his mental health condition and an increase in cross-dressing behavior. Pharmacotherapy with haloperidol and amisulpride caused gender incongruence to disappear.

In the case described by Baltieri and Andrade [34], a person of the birth-assigned female gender, identifying as a male, was diagnosed with schizophrenia and gender identity disorder. Before being administered anti-psychotic pharmacotherapy, the person felt a strong need for undergoing surgical intervention so that the body could match the gender identity. On administering pharmacotherapy with 450 mg of intramuscular haloperidol per month, the identity gender disorder symptoms did not disappear, the person continued to identify herself as a male, the only change in her sexuality was observed in the intensity of the desire for undergoing surgical intervention. Urban and Rabe-Jabłońska [4] described the case of a 56-year-old woman suffering from paranoid schizophrenia for 20 years who claimed that since early childhood she had been a boy. Hospitalized many times, many times she gave up anti-psychotic pharmacotherapy as soon as her mental health improved. During the hospitalization described in the paper, the woman was treated with the pharmacotherapy (olanzapine) which caused the psychotic symptoms to disappear and the reported gender incongruence to decrease.

The above descriptions of the cases show that the reaction of patients suffering from gender delusions to neuroleptic and anti-psychotic pharmacotherapy may be threefold: (1) the disappearance of gender incongruence; (2) a decrease or (3) maintenance of gender incongruence at a constant level. In the first case, these are gender delusions [23]. In the second case, it can be either transsexualism co-occurring with psychotic disorders [34], or partial efficiency of the pharmacotherapy. In the third case, gender dysphoria may co-occur with schizophrenia, or the pharmacotherapy may be inefficient in the case of the positive symptoms.

The co-occurrence of gender dysphoria and schizophrenia spectrum disorders

According to Rajkumar [17], one person in about a million may be diagnosed simultaneously with schizophrenia and gender dysphoria. The study by Cole et al. [35] showed that 0.9% of the examined patients experiencing gender dysphoria were diagnosed with schizophrenia. Hepp et al. [36] claimed that 6% of people suffering from gender dysphoria were diagnosed with schizophrenia or any other psychotic disorder in some period of their life. Results of the questionnaire study conducted by Campo et al. [37] among psychiatrists in the Netherlands who had transsexual

patients, both male and female, showed that 24% of the psychiatrists claimed that they simultaneously made diagnoses of different psychotic disorders (the research was widely criticized for the applied methodology [38]). Gómez – Gil et al. [39] conducted an analysis of the data available in the university hospital in Barcelona; the results showed that 2.5% of the transwomen and 2.8% of the transmen suffered from different psychotic disorders in their lifetime. In the research conducted by Lobato et al. [40] in the university hospital in Porto Alegre, Brazil, among patients with gender dysphoria 0.7% were in addition diagnosed with psychotic disorders. Hoshiai et al. [41], conducting their research among the patients of the gender identity disorder clinic in Okayama, noted that 0.3% of the patients had a double diagnosis – of gender identity disorder and psychotic disorders. Results of the questionnaire study conducted by Heylens et al. [42] among the population of patients of gender identity clinics in Norway, the Netherlands, Germany, and Belgium showed that 1% of the patients were diagnosed with different psychotic disorders at the time of the survey or in the past.

Among case studies, it is also possible to find cases of persons diagnosed with gender dysphoria/gender identity disorder/transsexualism co-occurring with psychotic disorders – they were described by Bhargava and Sethi [43], Siddqui et al. [44], and Meijer et al. [45].

Method

The data used in the case study were collected during a clinical interview, in the six-month diagnostic process. Apart from the interview, the diagnosis was also based on the results of the battery of tests: *the Minnesota Multiphasic Personality Inventory – 2* (MMPI-2) [46], *the Structured Clinical Interview for DSM-IV Axis I Disorders* (SCID-I) [47], *the Structured Clinical Interview for DSM-IV Axis II Disorders* (SCID-II) [48], *the Psychological Gender Inventory* (IPP) [49], *the Montreal Cognitive Assessment* (MoCA) [50], and the revised form of *the Wechsler Adult Intelligence Scale* (WAIS-R) [51].

A description of the case

The client has granted the author the permission for the publication of the case. He is a 27-year-old man with an incomplete secondary education. He was brought up in a full family (mother – 55-year-old, higher education, father – 56-year-old, higher education), and a 2-year-older sister. In the family history, both on his mother's side (her father) and his father's (his father's brother), there were persons diagnosed with schizophrenia. His father abused alcohol (he has been sober since the client was 15-year-old). The client declared he had good relations with his mother and sister till the early-junior-high-school period, when he got remiss in his school duties, and this often led to quarrels with his mother, who presented his sister as 'an example' to

him. His relations with his father, as he described them, were poor, which was related to the experience of physical violence which disappeared when his father started drug rehabilitation. His relations with his peers, as he reported, were normal till the late-junior-high-school period, when he started to withdraw from social contacts and experience depressed mood. Since childhood the client has been interested in and preferred activities stereotypically perceived as male (a military and do-it-yourself).

In the sexual life, he is attracted to women. His first masturbation, as he remembers it, took place when he was 15. In sexual fantasies, he imagined himself as a man undertaking sexual activities with women. He claimed that he rarely felt (and still rarely feels) libido; due to that he has masturbated several dozen times.

At the age of 16, the client experienced significant lowering of mood accompanied by abulia, apathy, anhedonia, suicidal ideation, and self-mutilation (he cut his forearms with a razor blade). After a suicide attempt, when he took "over a dozen" of his mother's tranquilizing pills, washing them down with vodka, he was hospitalized in a psychiatric ward, where he was diagnosed with mixed depressive/anxiety disorders and adaptive disorder. For about a year, he attended a psychiatric outpatient clinic, and he was treated with escitalopram. The client declares the appearance of the first psychotic symptoms at the age of 17, when he started experiencing auditory hallucinations, hearing commenting, and later also commanding, voices. Simultaneously, persecutory delusions appeared. After a quarrel with his mother when he was aggressive, and expressing his delusions he accused her of trying to poison him, he was hospitalized in a psychiatric ward. During the hospitalization, the administration of olanzapine caused the positive symptoms to decrease. During the observation, he was diagnosed with the paranoid syndrome.

At the age of 18, the client started taking marihuana, initially once a month, gradually increasing the frequency to 1–3 times a week at the age of 21. At that time, he also tried "designer drugs", mephedrone and amphetamine. From the above psychoactive substances, he started to regularly take amphetamine. Due to very frequent absences at school, he was not promoted to the last class of the secondary school. It was then that he started to take some physical odd jobs, from which he was often dismissed for absences. About the age of 20, he stopped taking anti-psychotic drugs, keeping it secret from his family and doctor. He thought that they want to "do harm" to him and "control his mind" by means of "these drugs". At the age of 21, he experienced the first delusions and hallucinations concerning his own gender. The content of the delusions took the form of the conviction that "he is not a man", with simultaneous appearance of tactile hallucinations in the genital area (he described them as a "pinching-pricking" sensation, pushing out of the scrotum and the penis by the vagina), which he considered a proof of "the vagina maturing behind the scrotum and the penis". To speed up the process, he tied the penis and the scrotum with a tape. This did not bring the desired result, so the client stopped doing it as the pain caused by the abrasions in the genital area became hard to stand. At that time he started wearing women's clothes. He kept it secret from his family, because the voices he was hearing "told" him that his family

wants to control him, they "want to do harm" to him, and that "it is better not to tell them that he is becoming a woman".

When he was 24, as a result of his losing another job, the conflict with his parents increased: he was hospitalized because of suicidal threats he made, inspired by delusions concerning the fear of his parents' control. During the hospitalization, he was administered anti-psychotic drugs again, which decreased the intensity of psychotic symptoms. It was then that he was diagnosed with paranoid schizophrenia. On the one hand, the client felt better because the voices that he was hearing became less troublesome; on the other hand, hallucinations and delusions concerning gender change also decreased, which he perceived as "taking away the female energy". After about a year of regular taking of olanzapine, he gradually decreased the dose until he stopped taking it at all. Then he started reading about transgender persons in the Internet, and he met some persons who seemed to him to feel similar to what he felt. He recollects that he felt understood by transgender persons with whom he was talking in the forum for several weeks, and whom he decided to finally meet in the real life. Like his new friends, he decided to start hormone replacement therapy and undergo sex reassignment surgery.

Examination of the client's mental state

The client is conscious, he has limited criticism, normal allopsychic and autopsychic orientations, slightly depressed mood, normal drive, shallow affect, abnormal train and content of thought (there are persecutory delusions, delusions concerning "changing gender", tactile hallucinations experienced in the genital area and the chest, and auditory hallucinations of commenting and commanding voices), he does not report suicidal thoughts.

Results scored by the client in the tests used during the examination

MMPI-2 [46] – a high score in the schizophrenia scale, an elevated score in the paranoia scale and an elevated score in the psychastenia scale (but lower than those mentioned before), the depression scale slightly elevated, the results obtained in the control scales allowed the interpretation of the questionnaire data. SCID-I [47] – paranoid schizophrenia. SCID-II [48] – 3 criteria of schizoid personality disorder, 4 criteria of schizotypal personality disorder, 4 criteria of depressive personality disorder. IPP [49] – the type: masculine man (low intensity of declared female traits, high intensity of declared male traits). MoCA [51] – results within the norm. WAIS-R [52] – a result within the norm.

Discussion/Comments to the case

The process of diagnosing took about half a year, during which the researcher gradually gained the client's trust, and the client started disclosing the contents of

his delusions and hallucinations. Information collected during the clinical interview show complex problems encountered by the client. He meets the general criteria for schizophrenia (F20.0) and paranoid schizophrenia according to ICD-10 [9] because of delusions and hallucinations dominating in the clinical picture. It is confirmed by the results of the SCID-I [47] and the MMPI-II [46]. Single diagnostic criteria met during the structured interview SCID-II [48] seem to depict not only the client's condition since the appearance of schizophrenia, but also to a large extent his functioning and problems at the time before schizophrenia. In this context, the results of the IPP look atypical; the client got a high score on the masculinity scale and a low score on the femininity scale, which significantly differs from the results of the research conducted by LaTorre [21], LaTorre and Piper [52], and Nasser et al. [53], which showed that persons diagnosed with schizophrenia got lower scores on the masculinity scale and higher scores on the femininity scale. A delusionary character of problems related to gender identification seems to be confirmed by: (1) their appearance after the first acute psychotic episode (which was only temporarily in partial remission) and the lack of visible conditions of gender incongruence in the preceding period of time; (2) the intensity of 'pseudo-transsexual' delusions and the tactile hallucinations of "the maturing vagina" behind the penis and the scrotum decreased by pharmacotherapy. The client asked for the transsexualism diagnosis because he wanted to undergo sex reassignment surgery. The diagnostic criteria for transsexualism (F64.0) formulated in ICD-10 [9] were not met: the client presented the contents concerning gender which were delusionary and hallucinatory in nature. His perception of himself as a woman was, first of all, conditioned by delusions of the vagina developing behind the penis and the scrotum, while the desire to undergo sex reassignment surgery was an attempt to obey the commanding auditory hallucinations. The level of determination to undergo sex reassignment surgery was to a large extent dependent on taking, or not taking, the pharmacotherapy reducing psychotic symptoms – the more he followed the doctors' advice, the less he desired to undergo sex reassignment surgery, or he stopped desiring it at all. The delusionary content, which I find especially interesting, is his conviction that his body turns into a "female" body under the influence of some forces from the outer space.

Conclusions

Diagnosing transsexualism/gender dysphoria/gender incongruence, it is especially important to distinguish it from psychotic disorders, but, as many case studies show, the diagnosis, e.g., of schizophrenia, does not have to preclude the appearance of the above [43–45]. Delusionary and hallucinatory contents may be the only source of the conviction of one's belonging to the gender other than the one assigned at birth [23, 32]; they may also modify a transsexual/transgender person's perception of his/her own gender [34]. If they appear, such a distinction is particularly significant in the diagnostic process. In this case, the so-called real-life test [13], during which

a diagnosed person should be under the care of a psychiatrist (who can administer the anti-psychotic pharmacotherapy) and a psychologist.

Undoubtedly, the process of diagnosing transsexualism/gender dysphoria requires a team work (psychiatrist, psychologist, sexologist, and endocrinologist), which has become an element of good practice in other countries [13], and one of the WPATH (World Professional Association for Transgender Health) basic guidelines [9].

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