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Gender dysphoria symptoms in schizophrenia

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Summary

Gender dysphoria in individuals with schizophrenia may result from the delusionally changed gender identity or appear regardless of psychotic process. Distinguishing between these situations is not only a diagnostic challenge, but also affects the therapeutic decision-making. The review of the literature shows that different delusional beliefs regarding belonging to another gender, anatomy or changes within the genitals affect about one-fourth of patients with schizophrenia. Contemporary classifications of disorders are moving towards the elimination of psychotic disorders as a disqualifying criterion in diagnosing gender dysphoria. It is also established that schizophrenia may change the picture of gender dysphoria, e.g., by giving meaning and delusional interpretations of the fact of the incompatibility of phenotypic sex with the sense of gender. At the same time, before making a therapeutic decision (especially aimed at gender reassignment), it is necessary to exclude the psychotic background of the desire for gender reassignment. In case of co-occurrence of both disorders, it is crucial to evaluate the chronology and dynamics of the individual symptoms, their constancy (prolonged observation), patient's criticism and response to antipsychotic treatment.

Key words: schizophrenia, gender dysphoria, gender identity disorder

Introduction

Gender dysphoria signifies the state of dissatisfaction and suffering caused by the discrepancy between one's own gender identity and the biological and legal sex as well as between an individually desirable and a socially expected gender role. This condition can become a dominant aspect of one's functioning, negatively affecting the quality of life and mental health of the person experiencing it. The term 'gender dysphoria' is used in the DSM-V as well as in standards of the World Professional Association for Transgender Health (WPATH). In the ICD-10, gender dysphoria is called 'transsexualism' and is listed in the group of gender identity disorders. Recently, the terms 'transsexualism' and 'gender identity disorder' are being increasingly

questioned as pathologizing interpersonal diversity in terms of gender identity [1–7]. Features of gender dysphoria in the course of schizophrenia most commonly represent the content of positive symptoms, and therefore fall within the scope of symptoms of psychosis. Sometimes, however, their clinical picture may meet the criteria of actual gender dysphoria.

Sex change as the content of positive symptoms

In the literature, beginning with the work of pioneers of sexology, the occurrence of positive symptoms related to sex change in the course of psychosis is noticeable. In *Psychopathia sexualis* von Krafft-Ebing [7] described delusions of sex change named *Metamorphosis Sexualis Paranoica*. Freud [8] presented a case of a psychotic patient wishing to become a woman. Four possible variants of delusions of sex change in schizophrenia have been identified: (1) delusions of non-belonging to one's own sex; (2) delusions of not belonging to either sex; (3) delusions of simultaneous belonging to both sexes; and (4) delusions of belonging to the opposite sex [9–12]. Krychman et al. [12] recognize the delusions of sex change as a form of delusional misidentification syndrome.

Estimates of the prevalence of positive symptoms of sex change in schizophrenic patients indicate their relatively high frequency. Two studies from the 1960s showed that 36% of women and 30% of men experienced hallucinations related to their genitals, 24% of women and 20% of men had delusions of genital changes and 25% of women and 27% of men had delusions of a loss of their own sex [13]. According to some authors, up to 20–25% of schizophrenic patients experience signs of sex change at some point in their lives [14–16]. These symptoms were more frequently reported during periods of exacerbation of the illness in male unmarried patients. However, there were no relationships between their occurrence and age, duration of illness or type of schizophrenia [9]. Specifying the prevalence of the phenomenon may be difficult because some patients may not report such symptoms in fear of negative judgment [10].

Krychman et al. [12] presented a case of a 60-years-old patient suffering from paranoid schizophrenia who believed that her ovaries were sperm-producing testicles and that her clitoris was a penis capable of erection and ejaculation. Antipsychotic pharmacotherapy combined with psychotherapy reduced the incidence of delusional content and the patient understood their psychotic background. Urban and Rabe-Jabłońska [10] described a middle-aged patient who had been suffering from schizophrenia for many years, who regularly reported the conviction of being male and functioned in male role (clothing, hairstyle, name, expression). Although the different options of pharmacotherapy during treatment did not eliminate this belief, its severity diminished with the disappearance of other symptoms of schizophrenia. Partial improvement was achieved with the use of olanzapine – the patient started reacting to her female name and using feminine pronouns while speaking of herself. According to the authors, the image of the symptoms and their fluctuating severity clearly indicate their delusional nature. Manderson and Kumar [17] described a 35-years-old patient suffering from schizophrenia for 15 years who was hospitalized during relapse which occurred after

discontinuation of medication. She believed that she was born as a man, and that her mother cut off her penis after her birth and injected her with hormones that transformed her into a woman. Convictions about the transformation of sex coincided with delusional religious content. The patient had been wearing men's clothing for 3 years. She showed sexual interest in women, however, she had rarely reported any dissatisfaction with her biological sex previously and had not sought sex reassignment possibilities. Restoration of hitherto used pharmacotherapy improved her condition and weakened the symptoms of gender dysphoria.

The described patients did not undertake pharmacological or surgical interventions aimed at adapting their bodies to beliefs nor did they declare such desires and their psychiatric diagnoses were unequivocal and confirmed by long-term course of the illness. Sometimes, however, demanding medical sex reassignment procedures may be one of the first manifestations of a not yet recognized illness. Jiloha et al. [18] presented the case of a 19-year-old female student functioning in a male role and reporting a desire for an surgical sex reassignment. Significant deterioration in academic performance and family relationships was observed, as well as the development of strong (unrequited) romantic feelings towards her female colleague, including the desire to marry her. The consciousness of the genitals physique was preserved, while at the same time she was convinced that her clitoris was an undeveloped penis. The patient was diagnosed with schizophrenia and treated with trifluoperazine. Desire to sex reassignment and functioning as a male subsided after two months of treatment and two-year observation showed stable functioning in the female role.

Positive symptoms of sex change in schizophrenia can provide important information about the course of the illness. Zafar [19] described a 40-year-old male patient with schizophrenia in whom conviction of having female sex and attempt to liken himself to the woman intensified with the deterioration of his mental state, becoming at the same time an important indicator of his health and early manifestation of relapse. Symptoms of gender dysphoria disappeared with overall improvement after application of amisulpride and haloperidol.

Co-occurrence of schizophrenia and gender dysphoria

The desire to make sex reassignment or the subjective sense of belonging to the opposite sex in schizophrenia does not always have to be a symptom of the illness. The possibility of co-occurring gender dysphoria and schizophrenia is recognized nowadays [15]. In recent years, a marked change occurred as seen in the DSM. While the third version required exclusion of other psychiatric disorders, including schizophrenia, for the diagnosis of gender dysphoria, the next versions – DSM-IV, DSM-IV-TR and DSM-V – did not formulate such a requirement anymore. In the ICD-10, the diagnosis of psychiatric disorders, including schizophrenia, excludes the diagnosis of gender identity disorder in the form of transsexualism. It may be assumed that the new version will depart from this condition.

Although gender dysphoria in patients with schizophrenia is a rare phenomenon, it is observed more often than in the general population [20, 21]. Sohn and Bosinski

[22] report that less than 5% of schizophrenic patients are looking for the possibility of a surgical sex reassignment. However, not all transgender people are interested in these procedures. Calnen [23] pointed to the prevalence of transsexualism symptoms among women with schizophrenia, although his case descriptions represent rather features of a crisis of sexual identity in an emotionally unstable personality. It is clear that there is a lack of research on gender identity in the schizophrenic population. In a study of Tsirigotis and Gruszczyński [24] conducted using, e.g., the selected MMPI-2 scales, 25.64% of 78 patients with schizophrenia answered diagnostically to the statements concerning disturbances in the area of gender identity. The used methodology, however, raises concerns about relevance in the context of gender dysphoria.

Studies assessing the prevalence of psychiatric disorders in patients seeking treatment for gender dysphoria are more frequent (Table 1). This issue was also assessed from the perspective of clinicians. In one study, 186 psychiatrists described their clinical experiences with patients reporting gender identity problems. 76% (n = 142) of the surveyed physicians, at least once in their careers, provided assistance to patients experiencing gender identity problems. Respondents reported a total of 584 patients, of which in 39% (n = 225) gender dysphoria was considered as a major diagnosis. In the remaining 61% (n = 359) of patients, gender identity problems coexisted with various mental disorders, whereas in 75% (n = 270) of patients in this group they were perceived as secondary to psychiatric disorders. The specificity of the disorders coexisting with identification problems was determined by 129 of the surveyed psychiatrists: 79% (n = 102) indicated personality disorders in their patients, 26% (n = 34) indicated major mood disorders, 26% (n = 34) – dissociative and 24% (n = 31) – psychotic disorders [14].

Table 1. **The prevalence of psychoses in patients with gender dysphoria**

Authors and year of a study	Study population	The incidence of psychotic disorders
Gómez-Gil et al. (2009) [25]	230 patients reporting for sex reassignment surgery	Psychosis occurred in 6 patients (2.6%; 3 among men and 3 among women).
Judge et al. (2014) [26]	Patients with gender dysphoria – 159 patients with M/F type and 59 patients with F/M type	The incidence of schizophrenia was found in 8 (5%) of the M/F subjects. There was no co-occurrence of gender dysphoria and schizophrenia in the F/M group.
Meybodi et al. (2014) [27]	83 patients with gender dysphoria	There was no case of schizophrenia.
Cole et al. (1997) [28]	435 patients of gender dysphoria clinic	Schizophrenia was diagnosed in 4 (0.92%) patients.
Levine (1980) [29]	51 patients demanding surgical sex reassignment	Schizophrenia was found in 8% of the subjects.
Okabe et al. (2008) [30]	603 patients of gender dysphoria clinic	There were 5 schizophrenic patients not included in the study[1].

[1] Diagnosis of gender dysphoria was based on the DSM-IV criteria, which did not require exclusion of psychotic disorders.

table continued on the next page

Burns et al. (1990) [31]	106 patients of gender dysphoria clinic	2 patients were diagnosed with schizophrenia
Hepp et al. (2005) [32]	31 patients treated for gender dysphoria	None of the patients had current diagnosis of psychotic disorder. One patient was diagnosed with schizophrenia-like psychotic disorder and the other one had a history of not specified psychotic disorder.
Hoshiai et al. (2010) [33]	579 patients diagnosed with gender dysphoria	Schizophrenia was diagnosed in 2 patients

Additional information comes from case studies. E.g., Bhargava and Sethi [34] described a 25-year-old patient demanding gender reassignment surgery and declaring the feeling of being a woman with the awareness of having the male body. It was established that from the childhood he preferred feminine clothes and the company of girls, he did not complete his education, did not start working, he was characterized by withdrawal and neglected personal hygiene. Sleep disturbances, sporadic aggressive behavior, mainly towards the family, as well as auditory hallucinations, persecution delusions, and affective maladjustment were reported. Treatment with risperidone resulted in an improvement in psychotic symptoms and there was no relapse in the following 2 years. However, symptoms in the sphere of gender identity remained, which allowed to identify both schizophrenia and gender dysphoria.

The mutual influence of symptoms of schizophrenia and gender dysphoria

Baltieri and De Andrade [15] indicated that schizophrenia can modify the course of previous gender dysphoria. They presented a case of a 19-year-old patient suffering from schizophrenia for 8 years who reported a permanent desire to be a man. She claimed that she was born as a boy, but her parents cut off her penis, and expressed her desire to fertilize her future partner. She negatively assessed her childhood because of the discrepancy between own preferences and requirements of the environment regarding the activity, clothing and companionship. From the age of 12 and menarche, social withdrawal, escaping from home, talking and smiling to herself, accusing the family of mutilation and hostile intent towards her family were observed. Since the age of 16, antipsychotic treatment was introduced but was also often discontinued, which resulted in increasing disorganization of behavior and the desire to be a man. Then she started bandaging her breasts and wearing male clothes. Improvement of mental status was obtained after 3 months of pharmacotherapy, which was continued in combination with group psychotherapy. The desire to modify her genitals decreased, however, the male behavior persisted.

In the case of schizophrenia, convictions about belonging to opposite sex may coexist with olfactory and gustatory hallucinations [35] as well as sensory hallucinations within the genitals [36, 37]. These symptoms are usually experienced by patients as extremely unpleasant and, in the case of sensory hallucinations, may be associated

with the conviction of experiencing sexual abuse or making attempts of self-castration [38, 39]. According to Baltieri and De Andrade [15], the risk of self-harm and suicide is higher when psychotic disorders coexist with transsexualism. A review of 110 documented cases of self-castration indicated the existence of schizophrenia in 48 of these individuals. Disorders in the field of sexual identification were found in 42% of cases. Transsexualism was diagnosed in only 10 cases [40]. St. Peter et al. [41] noted, however, that at least some of the analyzed cases did not apply sufficiently strong criteria for the division between psychotic disorders and gender dysphoria.

Differentiation of delusions of sex change and gender dysphoria

Complaints about gender identity issues reported by schizophrenia patients require insightful and careful diagnosis. The diagnosis should be made by a specialist in both mental and sexual health. If this requirement is not met, the patient should be referred for further consultations with a sexologist or psychiatrist (depending on which specialist they visited first). In each case, it is necessary to conduct a thorough interview about general and mental health as well as sexual functioning. It is necessary to verify whether the patient has not taken illicit hormonal drugs.

In case of seeking pharmacological and surgical procedures for sex reassignment, the psychotic background of these intentions should be ruled out [15]. The failure of proper differentiation exposes patients to far-reaching and irreversible changes [9]. There are reports of misdiagnoses of gender dysphoria in men with schizophrenia, resulting in unreasonable administration of female hormones that cause, among others, genital atrophy and breast growth [14], and even undergoing sex reassignment surgery [9]. The fundamental diagnostic problem is the distinction between the delusions of sex change and the actual gender dysphoria. It may be helpful to precisely assess the two following factors:

1. Criticism of the patient – people experiencing gender dysphoria have a subjective sense of belonging to the opposite sex and a strong desire to adjust their bodies and social functioning to that sense. However, they have a preserved awareness of their metrical gender and body structure and they understand that gender reassignment is a long-term process of psychological adaptation and external physical changes made through pharmacological and surgical procedures. Whereas delusions of sex change are associated with certitude of the actual possession of the opposite sex or the spontaneous passage of this change [15, 17, 22].
2. Response to antipsychotic treatment – previously presented case studies suggest that the antipsychotic treatment should not have a significant effect on the persistence of the actual gender dysphoria. However, if beliefs about sex change are delusional, appropriately selected pharmacotherapy should eliminate them relatively effectively.

Additional information may be provided by the analysis of the patient's life line. The psychotic nature of manifested gender dysphoria may be associated with a relatively sudden change of gender identity after a period of functioning consistent with the metric gender. However, it must be remembered that gender dysphoria is not always manifested

in the early stages of life, it can be concealed as well as difficult to grasp because of the specificity of functioning of prepsychotic patients or an early onset of the illness.

Provision of adequate help

The choice of adequate therapeutic strategy depends on the background of the reported problems. In the case of psychotic nature of the desire of sex change, it involves methods commonly used in the treatment of psychoses. In contrast, the actual co-occurrence of schizophrenia and gender dysphoria requires the simultaneous implementation of their respective interactions, which necessitates expertise in both psychiatry and sexology. The optimal solution is to entrust the treatment to a specialist in both areas, or close cooperation between a psychiatrist and a sexologist [12].

It is of paramount importance to determine the patient's ability to manage his/her life consciously. In the case of co-occurrence of the symptoms of the discussed disorders, Habermeyer et al. [42] recommended the accurate assessment of the symptoms for min. 1 year of regular treatment. The initiation of treatment of gender dysphoria should only be possible if it persists despite the disappearance of psychotic symptoms. Patients must be able to translate into the reality their desired gender role in their environment [9, 15]. The so-called real life test, involving functioning of the patient in the desired gender role in the essential areas of life for a period of 1–2 years, is usually used in the treatment of gender dysphoria, however, in recent years the way of application of this method and its accuracy have met with criticism. This method can be particularly problematic if there are socio-occupational difficulties that are common in people with schizophrenia.

Treatment of gender dysphoria should be conducted in accordance with current version of the WPATH standards [43]. In the case of people with schizophrenia, the use of pharmacological and surgical methods can be seriously impeded by:

1) the course of schizophrenia – periodic or gradual exacerbation of psychotic symptoms may prevent implementation of various stages of treatment of gender dysphoria; the current psychotic process precludes the use of surgical and pharmacological methods used for gender reassignment;
2) applied treatment – all interactions of pharmacological agents administered simultaneously in the treatment of psychosis and gender dysphoria should be specified and excluded; hormonal pharmacotherapy can affect the patient's emotional state;
3) adverse effects of drugs – antipsychotic medication side effects may be an obstacle to the implementation of particular hormonal and surgical interventions;
4) stress related to the treatment – the transformation process characteristic for the treatment of gender dysphoria is usually a source of intense experiences and numerous stressors that may pose a serious threat to one's mental health; nevertheless, the experience of gender dysphoria itself is perceived as highly stressful.

All of the above-mentioned factors should be carefully analyzed and discussed with the patient taking into consideration his/her individual needs and choices. However, it

should be kept in mind that the risk of harm cannot outweigh the potential therapeutic benefits. It may be helpful to make the patient aware of diversity of variants of realization of one's own gender identity [13].

Conclusions

The presence of symptoms of gender dysphoria in schizophrenic patients generates many serious diagnostic and therapeutic problems. On the one hand, decision on the sex reassignment-oriented treatment in the case of a coexisting psychotic process requires careful analysis, stabilization of mental state, prolonged observation and exclusion of delusional background of gender dysphoria. On the other hand, ensuring proper care for patients, including allowing for gender reassignment in the case of confirmation of a lack of causal relationship between the two disorders, seems an appropriate, although not free of difficulties and risk of complications, therapeutic proceeding.

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