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## GENDER IDENTITY AND SEXUAL BEHAVIOR IN THE STRUCTURE OF MENTAL PATHOLOGY IN CASES OF SCHIZOPHRENIA AND MENTAL DEVELOPMENT DISORDERS

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**ABSTRACT.** The article presents a study of sexual identity and sexual behavior of male gender diagnosed with “schizophrenia” (S) and “mental retardation” (MR). The object of the study was presented by two groups of 80 patients of psychoneurological boarding schools of St. Petersburg — a group with a diagnosis of “mental retardation” (MR) — 40 men and a group with a diagnosis of “schizophrenia” (S) — 33 men. The age of the groups represented ranged from 21 to 42 years. Many years of experience with this contingent of people allowed us to formulate a hypothesis according to which a direct connection between the characteristics of the sexual sphere and the sphere of sexual identity with the manifestation and dynamics of the disease takes place. With the help of the clinical-phenomenological method and the psychodiagnostic technique “Thematic Apperceptive Test” (TAT), as well as statistical procedures of correlation, cluster and factor analysis nonparametric Mann–Whitney U-test, structural and dynamic analysis was carried out and clinical data were obtained, unique psychopathological phenomena of the sexual sphere and the sphere of sexual identity of these patients were described. The specificity of the claimed material and the objectives of the study is that only content analysis, long-term clinical observations, direct work with patients in the rehabilitation process are able to assess the existing spectrum of deviations.

**KEY WORDS:** mental retardation; schizophrenia; homosexuality; transsexual propensities.

## ПОЛОВАЯ ИДЕНТИЧНОСТЬ И СЕКСУАЛЬНОЕ ПОВЕДЕНИЕ В СТРУКТУРЕ ПСИХИЧЕСКОЙ ПАТОЛОГИИ ПРИ ШИЗОФРЕНИИ И РАССТРОЙСТВАХ ИНТЕЛЛЕКТУАЛЬНОГО РАЗВИТИЯ

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**РЕЗЮМЕ.** В статье представлено исследование половой идентичности и сексуального поведения мужчин с диагнозами «шизофрения» и «умственная отсталость (расстройства интеллектуального развития)». Объектом исследования выступили разделенные на две группы 73 пациента психоневрологических интернатов Санкт-Петербурга — группа с диагнозом «умственная отсталость» — 40 мужчин и группа с диагнозом «шизофрения» — 33 мужчины. Возраст пациентов обеих представленных групп составил от 21 года до 42 лет. Имеющийся опыт работы с указанным контингентом позволил сформулировать гипотезу, в соответствии с которой при шизофрении половая идентичность и либидо представляют собой гармоничные по сути своей производные психического заболевания, компоненты системы психопатологических феноменов, встроенные в структуру и динамику психоза, в то время как у части лиц с нарушениями интеллектуального развития выявляются тенденции, имеющие поверхностное феноменологическое сходство с истинным гомосексуализмом и транссексуализмом, однако механизмы последнего, исходя из общей картины поведения, следует понимать как инфантильную сексуальность. С помощью клинико-феноменологического метода и психодиагностической методики «Тематический апперцептивный тест» (ТАТ), а также с привлечением статистических критериев хи-квадрат ( $\chi^2$ ) и U-критерия Манна-Уитни был проведен структурно-динамический анализ и получены клинические данные, описаны значимые психопатологические феномены сексуальной сферы и сферы половой идентичности. Спецификой заявленного материала и целей исследования является привлечение контент-анализа, комбинированно распространяющегося как на результаты клинического наблюдения, так и на результаты патопсихологического исследования, полученные при длительной непосредственной работе с больными в процессе их реабилитации.

**КЛЮЧЕВЫЕ СЛОВА:** умственная отсталость; шизофрения; гомосексуальность; транссексуальные тенденции.

## INTRODUCTION

Analysis of numerous literature sources both in Russian and foreign science, reflecting the state of the problem of gender identity disorders, which are based on the dissatisfaction with one's innate gender and the social role associated with it, ranging from mild forms of "doubts about gender" to gross manifestations of "gender denial" with the desire to change it, reveals a sharp increase in the number of patients with this disorder [10, 13, 15, 16, 20, 24, 30].

Cases of spontaneous desire to change the biological gender to the opposite one in adolescence

as a manifestation of age-related negativism and a tribute to fashion, which is caused by dependence on other people's opinions and increased suggestibility that has no connection with true gender identity disorders, are becoming more frequent [13, 15]. At the same time, an increased incidence of gender identity disorders has been reported in endogenous mental illnesses and personality disorders [1, 4, 7, 19, 21, 21, 23, 25, 26].

On the basis of these trends in the diagnosis of transsexualism (a condition based on the gender identity disorders manifested by the desire to live and be perceived by others as a person

of the opposite sex, usually accompanied by a feeling of discomfort from one's anatomical gender or a feeling of inappropriateness of one's gender), differentiation of its secondary manifestations from phenomenologically similar forms of behaviour becomes particularly relevant [22]. This may be explained by the fact that some pathological mental states may be inherently characterised by true transsexual tendencies, initially constituting components of the personality of a sick person, while other forms of mental pathology reveal only outwardly similar manifestations to transsexuality, which is exogenous in nature, brought into the pathogenetic structure of the disease and actually having different psychophysiological mechanisms. More detailed psychological analysis shows that these phenomes are not identical to each other [18, 19, 26, 27].

There are not many works describing the relationship between the pathological structure of personality or mental illness and the phenomenology of sexual identity and sexual behaviour disorders in the foreign and Russian literature [2].

Most of the scientific interest in this area is related to the search for the role of gender identity disorders in the context of non-severe and borderline forms of mental disorders [5, 13], which is fraught with diagnostic incorrectness, complicated by the lack of a generally accepted and consistent theory of the etiology and pathogenesis of transsexualism.

It should not be ignored that the presence of clinical picture and the dynamics of gender identity disorders itself can be secondary to the known psychopathological symptomatology [4]. The situation is complicated by the apparent insufficiency of works, the vector of which is related to the research of secondary disorders of sexual identity in the structure of such prodromal disorders as schizophrenia, the consequences of organic brain lesions, in particular, accompanied by mental dysontogenesis. Such a problematic information field can, in principle, serve as the basis for an independent line of research activity, solving the problem of assessing gender identity disorder as a relatively autonomous or derivative phenomenon within the framework of the mental illnesses.

The clinicopathological approach in the research of deviations of sexual attraction and sexual identity was applied at the end of the XIX century by the German scientist Richard Kraft-

Ebing [8]. In his monumental work "The sexual psychopathy", the author considered such phenomena as transsexualism, homosexuality, as well as such perversions as sadism, masochism, exhibitionism, necrophilia and many others as derived from organic brain disorders, in particular congenital and acquired dementia, epilepsy and endogenous psychoses.

Indeed, the differential diagnosis of transsexualism and complex sexual perversions with other psychopathological phenomena accompanied by gender identity disorder is complex and raises many questions. The most relevant is the question of the existence of these phenomena outside the clinical context. A lot of works by Russian authors who consider gender identity disorders in the context of the clinical picture of mental illnesses describe the presence of this phenomenon mainly within the framework of non-psychotic forms of mental disorders, such as schizotypal personality disorder, character pathologies, neurotic personality structure, which is most likely caused by the very presence of gender dysphoria [10, 13]. It is worth noting that similar affective and neurotic disorders of the non-psychotic spectrum within gender identity disorder (GID) and homosexuality have been considered outside the clinical context [4, 17, 18, 25].

In modern clinical psychiatry, there are a few studies describing disorders of sexual identity and sexual behaviour as part of malignant pathological mental states accompanied by gross personality deformation, and the description of sexual desire in these studies is secondary and is not considered as a separate phenomenon. For example, some clinical studies have shown a higher incidence of schizophrenia among individuals with gender identity disorders compared to the general population [12].

In the work of a series of authors, it was suggested that the formation of brain structures may be influenced by peculiarities of development and further functioning of the endocrine system, accompanied by a decrease in the androgynous index, which makes full-fledged puberty impossible. The same processes can become triggers for the actualisation of schizophrenia and, according to the principle of feedback, prerequisites for the vulnerability of the brain itself [9]. In particular, it has been proved that the leading factor in the pathogenesis of schizophrenia is asynchrony in the formation of the dopaminergic structures pre-

sent in the early stages of child growth and interacting with the limbic system, where important morphological formations that determine sexual behaviour are located [14]. Thus, the processuality of schizophrenia itself, encompassing the entire structure of the patient's personality, begins to affect his sexual behaviour [3].

Some studies indicate that disorders of sexual behaviour and sexual identity may be associated with the role of the schizophrenic process in the formation of sexual identity and sexual desire, which in the dynamics of the disease take the form of paranoid and delusional phenomenology [11]. For example, in the clinical picture of sexual identity disorders in combination with the schizophrenic process, the phenomena of interpretive delusions and delusions of reincarnation containing sexual fabula have been identified [10]. A number of authors have pointed out that the complex disharmony of puberty in schizophrenia in adolescence is a favourable ground for sexual disorders and deviations of sexual identity, acting as a primary pathognomonic link of psychiatric disorders [22]. N.G. Neznanov et al. [11] note that in schizotypal personality disorder in adolescents, sexual behaviour often becomes an area where deviations are particularly striking, and one has to deal with actions that go far beyond the boundaries of asocial groups. These include forcing sex on members of the family, including parents, the elderly, and minors; particularly perverse ways of satisfying the urge. J.W. Wanta et al. [28] found the features characteristic of schizophrenia patients in the premorbid period during investigating the mental health of individuals with sexual dysphoria in a clinical study, including parents, elderly, and young children. V. Warrier et al. [29], also came to the conclusion about the increased level of autism and autistic traits in transgender people.

S.N. Matevosyan and G.E. Vvedensky [10] described the phenomena of gender identity disorders in the schizophrenia, as well as the ideas of bipolarity and absence of sex, which have a complex structure and manifest themselves in the form of symbolic metaphysical constructions. A.Y. Avilov and A.P. Bizyuk [3] noted that these phenomena in schizophrenia do not have narcissistic, aesthetic and erotic content peculiar to transsexuals, and are not supported by the peculiarities of sexual attraction. The authors described the creation of neologisms with sexual content, as well as manifestations of sexuality

characteristic of such patients in the form of the declaration of sexual perversions in diagnostic conversation, not supported by real everyday sexual behaviour, as well as the presence of overvalued ideas of masturbation as an action of special significance.

In comparison with persons suffering from mental disorders, particularly schizophrenia, a special place in the interpretation of transsexual and homosexual tendencies is occupied by the phenomena found in adult patients suffering from mental retardation.

Thus, from the general mass of mental retardation D.N. Isaev singled out a special form of underdevelopment in adolescents — dysphoric pathocharacterological structure of personality, which is manifested by affective agitation, dysphoria, pathology of urges and hypersexuality [6]. In the author's opinion, these psychopathological features are associated with the lesion of functional systems represented in the deep structures of the brain and are in a more or less constantly excited state, and the underdevelopment of these structures is the main cause of the formation of transsexuality and homosexuality, which in some cases confirms the dysontogenetic nature of these disorders.

A.Y. Avilov and A.P. Bizyuk [3] found a whole complex of disorders of sexual behaviour and sexual identity in a significant part of this group of persons during studying men with mental retardation in a psychoneurological boarding school for a long time. These include homosexuality, cross-dressing, and transsexual tendencies. The authors described these individuals living in permanent homosexual couples, accompanied by a range of feelings from sympathy to love, as well as sexual excitement from presenting themselves in a female role. There have also been cases of presenting oneself as a woman or a person with a mixture of male and female sexual characteristics. R. Blanchart [18] described it in transgender people as a state of “autogenophilia” and “partial genophilia”. These phenomena require a detailed study to form an objective idea of the dysontogenetic role of sexual behaviour and gender role identity in psychiatric pathology.

## PURPOSE AND OBJECTIVES OF THE RESEARCH

**The aim.** To analyse the psychopathological differences of gender identity and sexual beha-

viour disorders in schizophrenia and intellectual developmental disorders.

### **Objectives of the study:**

1. To characterise the nosological specificity of GID in schizophrenia and intellectual developmental disorders.
2. To give a qualitative comparative assessment of the manifestations of GID and sexual behaviour in schizophrenia and intellectual developmental disorders, to characterise possible psychophysiological regularities of the differences found.

**Hypothesis:** in schizophrenia, sexual identity and libido are essentially harmonious derivatives of mental illness, components of a system of psychopathological phenomena embedded in the structure and dynamics of psychosis, while some individuals with intellectual development disorders show tendencies that have superficial phenomenological similarities to true homosexuality and transsexualism. However, its mechanisms, based on the general pattern of behaviour, should be interpreted as an infantile sexuality.

## **MATERIALS AND METHODS**

The object of the study was 73 men in the age range from 21 to 43 years old who were patients of one of the psychoneurological boarding schools in St. Petersburg. The group of patients with schizophrenia consisted of 33 men (the average age was 39.5 years), the group of patients with mental retardation — 40 men (the average age was 30.2 years).

Criteria for inclusion in the group of schizophrenia: 1) the diagnosis according to ICD-10 from the headings F20.0–20.9; 2) the formed mental defect, which determines the impossibility of independent life support of the patient and, as a consequence, the need to stay in a psychoneurological boarding school; 3) the state of stable remission, excluding the patient's hospitalisation in a psychiatric hospital. Criteria for non-inclusion in the schizophrenia group: The ICD-10 diagnosis from the F00–1x and F30–99 headings.

Criteria for exclusion from the schizophrenia group: 1) the refusal to perform test tasks; 2) the failure to understand the meaning of the questions asked by the researcher.

Criteria for inclusion in the mental retardation group: 1) the ICD-10 diagnosis from the

F70–79 rubrics; 2) the underdevelopment of intellectual functions, which determines the inability of the patient to support himself/herself and, as a consequence, the need to stay in a psychoneurological boarding school; 3) the state of stable remission, excluding the patient's hospitalisation in a psychiatric hospital.

Criteria for non-inclusion in the mental retardation group: the ICD-10 diagnosis from F00–69 to F80–99.

Criteria for exclusion from the mental retardation group: 1) the refusal to perform test tasks; 2) the failure to understand the meaning of the questions asked by the researcher.

**Statistical processing of the results.** To describe qualitative (categorical) variables, absolute (n) and relative (%) values in the group were used. The  $\chi^2$  test was used to compare qualitative variables. The values of asymmetry (As) and excess (Ex) and their standard errors (p) were used to test the normality of the distribution of quantitative variables. The sample was considered to conform to normal distribution if the absolute values of As and Ex did not exceed their standard errors. Description of quantitative variables in non-normal distribution of variables — median (Me) and 1st and 3rd quartiles. The Mann–Whitney U test was used to compare samples with non-normal distribution. Differences were considered statistically significant at  $p < 0.05$ .

**Nosological characteristics.** In the schizophrenia group, the predominant diagnosis was Paranoid Schizophrenia (F20.0) — in 75% of cases. In 25% of cases there was a diagnosis of “Simple schizophrenia” (F20.6). The group of patients with mental retardation was dominated by patients with mild degree.

All patients in the schizophrenia group were in persistent remission with pharmacological support at the time of examination. 58% of patients were treated with olanzapine, 25% with clozapine, and 16% with haloperidol. 2% of patients had debut at the age of 14–18 years, 58% at 18–25 years, and 40% at 25–30 years. The type of course in all patients was continuous with profound personality defect. The leading syndromes at the time of examination were paranoid (75%) and apathetic-abolic (25%). In patients with paranoid schizophrenia, dysmorphic delirium, delirium of invention, delirium of attitude and persecution were in the foreground of the clinical picture.

All patients with mental retardation had previously studied in a remedial school. 67.59% of patients with schizophrenia had secondary special education.

Most patients with mental retardation had been living in neuropsychiatric institutions since the age of 4 years. Only 3.1% of them were briefly adapted in their families. In the schizophrenia group, all subjects were brought up in the family, 64.23% of them by their mothers only. A close family relations were more often absent in patients with mental retardation (82.34% of cases) compared to schizophrenia patients (27.27% of cases).

**Analysis of sexual behaviour** showed that 100% of mental retardation patients and 84.87% of schizophrenia patients had sexual experience. As a rule, the first sexual experience in the mental retardation group was consensual with a homosexual partner (89.52%). In the schizophrenia group, the first contact was more often heterosexual (83.81%) and in 15.13% it was absent at all. At the time of examination, 82.76% of the patients with mental retardation were having regular sexual life, while in the schizophrenia group no one was having sexual life.

Comparative characterisation of the frequency of occurrence of various factors of dysontoge-

nesis in patients of both groups is presented in Table 1. The table shows that all the factors under consideration were statistically more frequently presented in patients with mental retardation.

To make it possible to translate the clinical observations into an acceptable quantitative form, an evaluation system was developed, providing a four-point scale (Tables 2a and 2b), in which the complete absence of a distinguishable feature was labelled as 0 points, a weak degree of severity — 1 point, a marked degree of severity — 2 points, and reaching the level of certain morbidity — 3 points. The authors are aware that the quantitatively represented psychological “distance” between the proposed scores, as well as their content load, may in fact be different, and that we have to deal predominantly with the rank organisation of such symptoms. Here we have to accept with the fact that the specifics of the material under study, which is based on the ideographic approach, generally do not allow us to construct a strict scale that could fully satisfy the principle of amparametric statistics.

At the same time, as research practice has shown, even such a modest spread of attributes already provides grounds for a number of conclusions.

Table 1

Summary table of registered psychophysiological factors of dysontogenesis

Таблица 1

Сводная таблица регистрируемых факторов дизонтогенеза

Характеристика фактора / Factor characteristic	Умственная отсталость, % / Mental retardation, %	Шизофре- ния, % / Schizophrenia, %	$\chi^2$	p
Тотальная задержка пубертата / Total delay of puberty	39	10	36,999	0,001
Наследственная отягощенность / Hereditary aggravation	35	14	16,649	0,001
Токсикоз беременности матери и ее эндокринная патология / Toxicosis of the mother's pregnancy and her endocrine pathology	26	11	7,254	0,008
Гипертензивный синдром и повышенная возбудимость / Hypertensive syndrome and increased excitability	39	27	5,129	0,024
Признаки психического инфантилизма / Signs of mental infantilism	40	9	39,603	0,001
Задержка психосексуального развития / Delayed psychosexual development	37	25	3,960	0,047
Задержка соматосексуального развития / Delayed somatosexual development	37	12	25,821	0,001
Диспластический вариант конституции / Dysplastic version of the constitution	34	19	6,837	0,009

Table 2a

Rating system for sexual behavior and gender role identity of men with mental retardation and schizophrenia

Таблица 2a

Система оценки особенностей сексуального поведения и полоролевой идентичности мужчин с умственной отсталостью и шизофренией

Сексуальная сфера / The sexual sphere			Баллы / Points
1	Сексуальная разборчивость (СР) / Sexual intelligibility (SI)	Безразличие в сексуальной сфере / Sexual indifference	0
		Слабо дифференцированная по полу и внешности направленность сексуального поведения / Weakly differentiated by gender and appearance orientation of sexual behavior	1
		Дифференцированная по полу и внешности направленность сексуального поведения / Sexual behavioral orientation differentiated by gender and appearance	2
		Изощренная избирательность в выборе полового партнера / Sophisticated selectivity in choosing a sexual partner	3
2	Гомосексуальные предпочтения (ГМП) / Homosexual preferences (HMP)	Не проявляет сексуального интереса к мужчинам / Doesn't show sexual interest in men	0
		Наличие равного сексуального интереса к лицам обоих полов / Having equal sexual interest in both genders	1
		Доминирующее сексуальное влечение к мужчинам при наличии редких сексуальных эпизодов по отношению к женщинам / Dominant sexual attraction to men with infrequent sexual episodes toward women	2
		Исключительно гомосексуален / Exclusively homosexual	3
3	Гетеросексуальные предпочтения (ГТП) / Heterosexual preferences (He RP)	Не проявляет сексуального интереса к женскому полу / No sexual interest in the female gender	0
		Наличие равного сексуального интереса к лицам обоих полов / Having equal sexual interest in both genders	1
		Доминирующее сексуальное влечение к женщинам при наличии редких сексуальных эпизодов по отношению к мужчинам / Dominant sexual attraction to women with infrequent sexual episodes toward men	2
		Исключительно гетеросексуален / Exclusively heterosexual	3
4	Другие формы сексуальных предпочтений (ДФСП) / Other forms of sexual preference (OFSP)	Отсутствие потребности сексуального удовлетворения с неодушевленными предметами или устойчивые сексуальные отношения с партнером / Lack of need for sexual gratification with inanimate objects or a stable sexual relationship with a partner	0
		Имеются единичные случаи сексуального удовлетворения с неодушевленными предметами / There are isolated instances of sexual gratification with inanimate objects	1
		Стойкие проявления сексуального удовлетворения с неодушевленными предметами / Persistent displays of sexual gratification with inanimate objects	2
		Секс с неодушевленными предметами как патологическая (сверхценная) идея / Sex with inanimate objects as a pathological (supervalue) idea	3
5	Проявление сексуальных пerversий (ПСП) / The manifestation of sexual perversion (MSP)	Отсутствие сексуальных пerversий / No sexual perversions	0
		Редкие фетишистские явления, эксгибиционизм / Rare fetishistic phenomena, exhibitionism	1
		Периодические фетишистские явления и эксгибиционизм / Periodic fetishistic phenomena and exhibitionism	2
		Стойкие фетишистские явления и эксгибиционизм, в том числе гомосексуального характера / Persistent fetishistic phenomena and exhibitionism, including of a homosexual nature	3

Окончание табл. 2а / Ending of the table 2a

Сексуальная сфера / The sexual sphere			Баллы / Points
6	Нарциссизм (Н) / Narcissism (N)	Безразличное отношение к своей внешности / Indifferent attitude to one's appearance	0
		Следит за своей внешностью в пределах общепринятых норм / Takes care of his appearance within accepted norms	1
		Периодическое наличие явлений нарциссизма / The occasional presence of narcissistic phenomena	2
		Стойкие явления нарциссизма, в том числе любование собой в сочетании с представлением себя в образе противоположного пола / Persistent phenomena of narcissism, including self-love combined with presentation of oneself in the image of the opposite sex	3
7	Мастурбация (М) / Masturbation (M)	Не мастурбирует / Not masturbating	0
		Мастурбирует редко / Masturbates infrequently	1
		Мастурбация как преимущественное средство сексуальной жизни / Masturbation as a primary means of sexual activity	2
		Навязчивая мастурбация, мастурбация как сверхценная идея / Compulsive masturbation, masturbation as a supervalue idea	3
Полоролевая идентичность / Gender identity			
8	Считает себя мужчиной (СММ) / Considers himself a man (CHM)	Не дифференцирует себя по полу / Doesn't differentiate himself by gender	0
		Попеременно считает себя то женщиной, то мужчиной / He alternately sees himself as a woman and a man	1
		Считает себя больше мужчиной, чем женщиной / Thinks of herself more of a man, than a woman	2
		Определенно считает себя мужчиной / Definitely considers himself a man	3
9	Считает себя женщиной (СЖЖ) / Considers herself a woman (CHW)	Не дифференцирует себя по полу / Doesn't differentiate himself by gender	0
		Попеременно считает себя то женщиной, то мужчиной / He alternately sees himself as a woman and a man	1
		Считает себя больше женщиной, чем мужчиной / Thinks of herself as more of a woman than a man	2
		Определенно считает себя женщиной / Definitely considers himself a woman	3
10	Транссексуальные тенденции (ТСТ) / Transsexual tendencies (TST)	Не проявляет транссексуальных тенденций / Doesn't exhibit transsexual tendencies	0
		Редкие упоминания о желании жить и родиться женщиной / Rare references to the desire to live and to be born a woman	1
		Проявляет интерес и желание жить и родиться женщиной, фемининность в поведении / Demonstrates interest and desire to live and be born female, femininity in behavior	2
		Наличие стойкого желания жить и родиться женщиной, иметь женские анатомические особенности в сочетании с самосознанием себя женщиной / Persistent desire to live and be born a woman, to have female anatomical features combined with self-awareness of being a woman	3
11	Кросс-дрессинг (КД) / Cross-dressing (CD)	Никаких реальных или вербально выражаемых тенденций к переодеванию в женскую одежду не отмечается / No real or verbally expressed tendencies to change into women's clothing are noted	0
		Переодевание в женские одежды носит эпизодический характер / Dressing up in women's clothes is episodic	1
		Периодически надевает элементы женской одежды / Occasionally wears elements of women's clothing	2
		Имеется стойкая потребность в переодевании в свободное время, некоторые элементы женской атрибутики (нижнее белье) носит постоянно, в беседах декларирует свои предпочтения / There is a persistent need to change clothes in free time, some elements of female paraphernalia (underwear) is worn constantly, in conversations he declares his preferences	3

Table 2b

A system for assessing sexuality and gender role identity features in TAT interpretations  
in men with mental retardation and schizophrenia

Таблица 2б

Система оценки особенностей сексуальности и полоролевой идентичности в интерпретациях ТАТ  
у мужчин с умственной отсталостью и шизофренией

	Система оценки / Rating system		Баллы / Points
1	Идентификация с героем противоположного пола (ИСГПП) / Identification with a hero of the opposite sex (IWHOS)	Не идентифицирует себя с героем противоположного пола / Doesn't identify oneself with a hero of the opposite sex	0
		Идентификация с героем противоположного пола в предложенной серии картин встречается не более 1–2 раз / Identification with a hero of the opposite sex in the proposed series of pictures occurs no more than 1–2 times	1
		Идентифицирует себя с героем противоположного пола в большинстве интерпретаций предложенных таблиц (картин) / Identifies with the hero of the opposite sex in most interpretations of the proposed tables (pictures)	2
		Регулярная и ярко выраженная идентификация с героем противоположного пола, проекция своих чувств и мыслей на этого героя / Regular and pronounced identification with the hero of the opposite sex, projection of one's feelings and thoughts onto this hero	3
2	Идентификация с героем своего пола (ИСГСП) / Identification with the hero of his own gender (IWHOG)	Не идентифицирует себя с героем своего пола / Doesn't identify oneself with the hero of his gender	0
		Идентификация с героем своего пола в предложенной серии картин встречается не более 1–2 раз / Identification with a character of one's own gender occurs no more than 1–2 times in the proposed series of paintings	1
		Идентифицирует себя с героем своего пола в большинстве интерпретаций предложенных таблиц / Identifies with the hero of his gender in most interpretations of the suggested tables	2
		Стойкая и ярко выраженная интерпретация, проекция своих чувств и мыслей на героя своего пола / Persistent and pronounced interpretation, projection of one's feelings and thoughts onto a hero of one's own gender	3
3	Искажение воспринимаемого пола персонажей (ИПП) / Distortion of the perceived gender of the characters (DGC)	Правильно определяет пол персонажа / Correctly identifies the gender of the character	0
		Наличие искажений пола персонажа в предложенной серии картин встречается не более 1–2 раз / The presence of distortions of the character's gender in the proposed series of paintings occurs no more than 1–2 times	1
		Искажение пола персонажа носит системный характер / The distortion of a character's gender is systemic	2
		Искажение пола персонажа носит системный характер и сопряжено с любовной или сексуальной фабулой / The distortion of a character's gender is systemic and is paired with a love or sexual fabula	3
4	Искажение воспринимаемого возраста персонажей (ИВП) / Distortion of the perceived age of the characters (DAC)	Правильно определяет возраст персонажа / Correctly identifies the age of the character	0
		Наличие искажений возраста персонажа предложенной серии картин встречается не более 1–2 раз / The presence of distortions of the age of the character of the proposed series of pictures occurs no more than 1–2 times	1
		Искажение возраста персонажа встречается при интерпретации большинства предложенных таблиц / Distortion of the character's age is found in the interpretation of most of the proposed tables	2

Окончание табл. 2b / Ending of the table 2b

	Система оценки / Rating system		Баллы / Points
		Искажение возраста персонажа встречается при интерпретации большинства предложенных таблиц, имеется смысловая и эмоциональная нагрузка таких искажений, а также их связь с собственной идентичностью / Distortion of the character's age is found in the interpretation of most of the proposed tables, there is a semantic and emotional load of such distortions, as well as their connection with one's own identity	3
5	Наличие сексуальных мотивов (HCM) / The presence of sexual motives (PSM)	Отсутствие сексуальных мотивов / Lack of sexual motivation	0
		Интерпретации, включающие сексуальную тематику в предложенной серии картин, встречаются не более 1–2 раз / Interpretations that include sexual themes in the proposed series of paintings occur no more than 1–2 times	1
		Сексуальная тематика встречается при интерпретации большинства предложенных таблиц / Sexual themes are found in the interpretation of most of the proposed tables	2
		Интерпретации, включающие сексуальную тематику, присутствуют для большинства предложенных таблиц, ярко выражены и являются основной фабулой историй / Interpretations that include sexual themes are present for most of the proposed tables, are explicit and are the main fabula of the stories	3
6	Сексуальные перверсии (СП) / Sexual perversions (SP)	Нет упоминаний сексуальных перверсий / No mention of sexual perversions	0
		Интерпретации, включающие сексуальные перверсии, для предложенной серии картин встречаются не более 1 раза и не выражены / Interpretations involving sexual perversions for the proposed series of paintings occur no more than 1 time and are not pronounced	1
		Описания сексуальных перверсий присутствуют в большинстве интерпретирующих рассказов / Descriptions of sexual perversions are present in most interpretive narratives	2
		Интерпретации, включающие сексуальные перверсии, регулярны, ярко выражены, в том числе присутствующие в них изнасилования или сексуально окрашенные убийства, являются основной фабулой историй и сопряжены с нарушением идентичности / Interpretation involving sexual perversions are regular, explicit, including the presence of rape or sexually colored murders, are the main fabula of the stories, and involve identity disruption	3
7	Гомосексуальные эпизоды (ГЭ) / Homosexual episodes (HE)	Нет упоминаний гомосексуальных эпизодов / No mention of homosexual episodes	0
		Интерпретации, включающие гомосексуальные эпизоды, встречаются в предложенной серии картин не более 1 раза и не выражены / Interpretations involving homosexual episodes occur no more than 1 time in the proposed series of paintings and are not pronounced	1
		Систематические интерпретации, включающие гомосексуальные эпизоды / Systematic interpretations that include homosexual episodes	2
		Описания, включающие гомосексуальные эпизоды, присутствуют в большинстве интерпретирующих рассказов, ярко выражены, имеют эмоциональную окраску, присутствует подробное описание полового акта, гомосексуальная фабула в описании сопряжена с нарушением идентичности и искажением пола персонажа / Descriptions that include homosexual episodes are present in most of the interpretive stories, are vividly expressed, have emotional coloring, there is a detailed description of sexual intercourse, the homosexual fabula in the description involves violation of identity and distortion of the character's gender	3

Table 3

Differences in the characteristics of sexual behavior and gender role identity of the studied groups

Таблица 3

Различия особенностей сексуального поведения и полоролевой идентичности изучаемых групп

№	Феномены / Phenomena	М [Q1; Q3]		Значимость различий по критерию U Манна–Уитни, р — риск ошибки / The significance of the differences by Mann–Whitney U test; p — the risk of error
		группа шизофрении (n=33) / schizophrenia group (n=33)	группа умственной отсталости (n=40) / a group of mental retardation (n=40)	
Сексуальная сфера / The sexual sphere				
1	Сексуальная разборчивость (СР) / Sexual intelligibility (SI)	2,00 [1,00; 3,00]	3,00 [2,00; 3,00]	U=506,0 p=0,088876
2	Гомосексуальные предпочтения (ГМП) / Homosexual preferences (HMP)	0,00 [0,00; 0,50]	3,00 [0,00; 3,00]	U=270,0 p=0,000016*
3	Гетеросексуальные предпочтения (ГТП) / Heterosexual preferences (HRP)	1,00 [0,50; 3,00]	1,00 [0,00; 3,00]	U=555,5 p=0,249029
4	Другие формы сексуальных предпочтений / Other forms of sexual preference (OFSP)	2,00 [0,00; 2,50]	0,50 [0,00; 1,00]	U=381,0 p=0,002023*
5	Проявление сексуальных перверсий (ПСП) / The manifestation of sexual perversion (MSP)	2,00 [0,00; 3,00]	2,00 [0,00; 3,00]	U=607,5 p=0,564375
6	Нарциссизм / Narcissism	0,00 [0,00; 2,00]	2,00 [1,00; 3,00]	U=389,5 p=0,002766*
7	Мастурбация / Masturbation	3,00 [0,00; 3,00]	0,00 [0,00; 1,00]	U=414,0 p=0,006508*
Полоролевая идентичность / Gender identify				
1	Считает себя мужчиной (ССМ) / Considers himself a man (CHM)	3,00 [2,00; 3,00]	2,00 [1,00; 3,00]	U=486,5 p=0,055176
2	Считает себя женщиной (ССЖ) / Considers herself a woman (CHW)	0,00 [0,00; 1,00]	1,50 [0,00; 3,00]	U=404,5 p=0,004708*
3	Транссексуальные тенденции (ТСТ) / Transsexual tendencies (TST)	0,00 [0,00; 1,00]	1,00 [0,00; 3,00]	U=418,0 p=0,007435*
4	Кросс-дрессинг (КД) / Cross-dressing (CD)	0,00 [0,00; 0,50]	0,00 [0,00; 2,75]	U=471,0 p=0,036682*
Критерии по TAT / TAT criteria				
1	Идентификация с героем противоположного пола (ИСГПП) / Identification with a hero of the opposite sex (IWHOS)	1,00 [1,00; 2,00]	2,00 [0,25; 3,00]	U=547,5 p=0,214465
2	Идентификация с героем своего пола (ИСГСП) / Identification with the hero of his own gender (IWHOG)	3,00 [2,00; 3,00]	2,00 [1,00; 3,00]	U=506,0 p=0,088876
3	Искажения воспринимаемого пола персонажей (ИПП) / Distortions of the perceived gender of the characters (DGC)	1,00 [1,00; 2,00]	3,00 [1,25; 3,00]	U=241,0 p=0,000004*
4	Искажение воспринимаемого возраста персонажей (ИВП) / Distortion of the perceived age of the characters (DAC)	1,00 [1,00; 1,50]	2,00 [1,00; 3,00]	U=346,5 p=0,000522*
5	Наличие сексуальных мотивов (НСМ) / The presence of sexual motives (PSM)	1,00 [0,00; 3,00]	2,00 [1,00; 3,00]	U=568,5 p=0,313156
6	Сексуальные перверсии (СП) / Sexual perversions (SP)	1,00 [0,00; 2,00]	2,00 [0,00; 3,00]	U=529,5 p=0,149616
7	Гомосексуальные эпизоды (ГЭ) / Homosexual episodes (HE)	0,00 [0,00; 1,00]	2,00 [2,00; 3,00]	U=324,5 p=0,000205*

\* Различия статистически значимы на уровне  $p < 0,05$ .

## RESULTS AND DISCUSSION

The differences in the scores of the studied attributes of sexual behaviour and gender role identity of both groups are shown in Table 3.

In the group of mental retardation all subjects had an increased interest in sexual topics. Here the phenomenon of homosexual behaviour was significantly more frequent. It seems that in the group of mental retardation homosexuality is not primitive in nature, prompted by disinhibition of urges; it is a consequence of a peculiar conscious subculture, including both erotic and aesthetic components. It should also be taken into account that the absolute majority of the subjects identify themselves as homosexuals. As an ideal partner in a relationship, the subjects name a boy or a young man, while they also identify themselves as boys.

Amorous relationships in the group fulfil all the criteria of heterosexual couples with frequent changes of partners, difficult separation experiences, and jealousy of those who like other men and women. A strict hierarchy can be traced in the relationship: the presence of a dominant, more masculine partner who fulfils the role of a man, and a more fragile, feminine, younger partner who fulfils a female role. At the same time, the subjects have negative attitudes towards women. Homosexual projection is also significantly higher in the mental retardation group. These subjects project their homosexual fantasies and experiences more openly in their stories. The theme of love between two men or boys is central to the content of the stories. The male characters are described as handsome, muscular, desirable and young. The female character, on the contrary, is perceived extremely negatively, as cruel, making the man unhappy and corrupting him. The specific misogyny inherent in mentally retarded patients is probably the result of their improper socialisation.

The motivational sphere is also being affected. Thus, when homosexual tendencies are clearly demonstrated, some subjects project their specific motives, fantasies, and experiences onto the relationships of the characters in the picture of the other sex, identifying themselves with women. Homosexual episodes also occur in the schizophrenia group, but with a much lower frequency of manifestation than in the mental retardation group. Nevertheless, it is not possible to interpret this phenomenon

as true homosexuality, since, for example, the patient admits his homosexual experience “but only with older men” in the psychiatric hospital. Heterosexual intercourse is denied, and he says that he is attracted to sexual intercourse “but only in the anus”, in both passive and active roles, explaining that this is “convenient for the passage of seminal fluid”. Patients are often disturbed by the feeling of foreignness, the made-ness of sexual desire (including homosexual), its violent and burdensome, painful character. In conversation and description of drawings, the patient described the sexual fantasy as an artificial sexual act “with an indeterminate male with a removable plastic tap” or “hose”.

Open, exciting masturbation by the patient is significantly higher in the schizophrenia group. Masturbation has a super-valuable character, it was carried out by a “spiritual hand made of precious stone”, it is described as “sowing the sacred seed”, as a cause of immobility, “petrification” (and the patient really does not walk, only lies down).

The identification of themselves as the subject of sexual desire is characterised by intrapsychic ataxia and symbolism of thought typical of schizophrenic patients, manifested, in particular, by neologisms. For example, the patient calls himself a “homoshist”, i.e. a person who is both homosexual and fetishist. In the course of conversation on the basis of compiled stories based on the stimulus material, patients from the schizophrenia group give pretentious answers with deliberately crude sexual content, interpreting the pictures as a crude sexual act, violence or murder. On the ward, however, they are predominantly passive and show no signs of sexual interest (except for masturbation).

This prompted us, taking into account statistically significant differences, to label the typical form of sexual gratification in schizophrenia discussed above as “other forms of sexual preference”. For example, to satisfy his sexual desire with dolls purchased in a shop, which are figures of young, slender and attractive women, the patient, creating a preferred sexual image for himself, simultaneously buys for them sexual, from his point of view, clothes (high boots, short shorts, provocative blouses, etc.) and calls them wives. Another patient satisfies his sexual desire with pictures of provocatively lewd women drawn by himself. Even the heterosexual nature of the sex drive is included in a complex

structure of delusions. For example, the patient is exclusively attached to one of the female staff members and sees in all her behaviour a complex symbolism of love signs for him in order to lure him into sexual defilement or participation in an orgy. The sexual interest of the patient is usually passive. Even sexual content in the form of pornography does not interest the patients. Their sexual interest does not go beyond delusions and is strictly included in the dynamics of the illness.

It should be noted that gross, delusional sexual production in schizophrenia is manifested only in very young patients; as they grow older, it begins to have an increasingly symbolic, metaphysical character. To characterise the sexual behaviour of patients in both groups, we identified such an important factor as manifestations of sexual perversions, which showed no statistically significant differences (Table 3) and differed only qualitatively. Thus, exhibitionism in the group of mental retardation had a frequent and persistent manifestation in the form of demonstrations of genitals to representatives of one's sex from favourite living and had a clear sexual connotation. In the schizophrenia group the patients also showed similar behaviour, but it had no direction and had a more aimless character of open masturbation. In the vast majority of cases of perversions in the schizophrenia group, they manifested the phenomena of other forms of sexual preference described above.

Transsexual tendencies prevailed considerably in the group of patients with mental retardation; most of the patients readily admitted that they wished they had been born women, copied feminine behaviour in everyday life, and gave their appearance an accentuated feminine appearance. Cross-dressing was also prevalent in the mental retardation group; patients willingly changed into women's clothes, wore women's underwear, tights and shoes, and walked around the ward in this manner, with their inherently caricatured femininity and sensuality, swaying their hips as they walked, often fixing their hair, speaking in a high tone of voice, and gesticulating vigorously. In the schizophrenia group, these phenomena also occurred, but with a different meaning, manifesting themselves in pretentiousness, ataxia, and paralogical phenomena. For example, a patient claimed that he wanted to become a woman because he

liked female names and surnames better. In his passport he wants to be recorded as a woman, and he dresses up in some female clothes for exercise. Another patient claimed that he became a woman when at a young age he swallowed an object that looked like an ice cube, because of which he feels a female essence inside him, causing him mental and physical suffering.

## DISCUSSION

In schizophrenia and intellectual developmental disorders the nature of sexual identity and sexual behaviour is altered. Nosological specificity plays a significant role, which redefines the nature of sexual behaviour and sexual identity.

In male intellectual developmental disorders, a similarity to true homosexuality and transsexualism develops, but its mechanisms, based on the overall pattern of behaviour, should be understood as infantile sexuality. In schizophrenic males, sexual behaviour and gender role identity are bizarre perversions in the form of metaphysical interpretation of sexuality and gender identity, satisfaction of sexual desire with inanimate objects, compulsive masturbation and making it super-valuable. There are delusional interpretations of homosexual and transsexual tendencies.

## CONCLUSION

The mechanism of sexual behaviour and gender role identity in mental retardation is a variant of dysontogenetic infantile sexuality. Such peculiarities, apparently, are caused by two factors. Firstly, the general underdevelopment of the psyche due to organic causes (the prenatal and postnatal cerebral pathology), resulting in delayed sexual development and insufficient formation of reflexion inherent to normal psyche. And secondly, the formation of sexual maturation in the special conditions of a psycho-neurological boarding school.

In the formation of sexual behaviour and gender-role identity in schizophrenia, physiologically preserved "fragments" of premorbid sexual and gender-role properties of the personality merge with the immediate clinical manifestations of the disease. As a result, the patient's libido is transformed and sexual behaviour and

gender-role identity are formed according to schizophrenic type, resulting in its disorders and perversions pathognomonic of this category of patients, manifested by paranoid delusions (being inside the female essence, feeling of being both male and female, feeling of being made of sexual intercourse, metaphysical interpretation of masturbation) and gross pretentiousness (demonstrative interpretation of pictures as manifestations of sexual cruelty and violence, as well as demonstrative masturbation).

## ADDITIONAL INFORMATION

**Author contribution.** Thereby, all authors made a substantial contribution to the conception of the study, acquisition, analysis, interpretation of data for the work, drafting and revising the article, final approval of the version to be published and agree to be accountable for all aspects of the study.

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