Self-Stigma in Patients with Endogenous Mental Disorders: A Cross-Sectional Comparative Study

Самостигматизации у пациентов с эндогенными психическими расстройствами: кроссекционное сравнительное исследование

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Original research

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ABSTRACT

BACKGROUND: Self-stigma remains one of the most vexing issues in psychiatry. It complicates the treatment and social functioning of patients with endogenous psychiatric disorders. Identifying the specific features of self-stigma depending on the type and duration of the endogenous mental illness can help solve this problem.

AIM: The aim of this study was to establish the level and specific features of self-stigma in patients with various types of chronic endogenous psychiatric disorders at different disease stages and to establish the correlation between the level of self-stigma and the attitude of the patient to his/her disease and treatment.

METHODS: Clinical psychopathology assessment, psychometric scales and questionnaires: "Positive and Negative Syndrome Scale" (PANSS), "Questionnaire for Self-Stigma Assessment in Mentally Ill Patients", and Russian versions of the "Insight Scale for Psychosis" (ISP), and "Drug Attitude Inventory" (DAI-10). The cross-sectional study included 86 patients with endogenous mental illnesses (bipolar affective disorder and schizophrenia spectrum disorders.

RESULTS: The analysis of the results of the "Questionnaire for Self-Stigma Assessment in Mentally Ill Patients" showed that at the initial disease stages the highest level of self-stigma is observed in patients with bipolar affective disorder (M±σ=1.22±0.73; Me [Q1; Q3]=1.10 [0.83; 1.60]), while the lowest level was observed in patients with schizophrenia spectrum disorders (M±σ=0.86±0.53; Me [Q1; Q3]=0.77 [0.31; 1.25]). Patients with schizophrenia and schizoaffective disorder and a disease duration more than five years participating in a long-term comprehensive psychosocial rehabilitation program also demonstrated high rates of self-stigma (M±σ=1.20±0.57, Me [Q1; Q3]=1.26 [0.89; 1.47]). The study groups showed differences in terms of the structure of components of self-stigma and their severity; significant correlations were uncovered between the self-stigma parameters and the attitude of patients to their disease and therapy.

CONCLUSION: The results of this study contribute to a better understanding of the specific features of self-stigma in patients with various endogenous disorders at different stages of the disease. These data can be used as part of a comprehensive psychosocial treatment program for this patient cohort, as well as for future research.

АННОТАЦИЯ

ВВЕДЕНИЕ: Самостигматизация остается одной из актуальных проблем современной психиатрии, которая затрудняет лечение и социальное функционирование пациентов с эндогенными психическими расстройствами. Решению этой проблемы может способствовать определение особенностей и специфики самостигматизации в зависимости от формы и длительности эндогенного психического расстройства.

ЦЕЛЬ: Установить уровень и особенности самостигматизации у пациентов с различными формами эндогенных хронических психических расстройств на разных этапах болезни и выявить связь выраженности самостигматизации с отношением к своему заболеванию и лечению.

МЕТОДЫ: Клинико-психопатологический, психометрические шкалы и опросники («Опросник для оценки феномена самостигматизации психически больных», «Шкала позитивных и негативных симптомов — «Positive and Negative Syndrome Scale» (PANSS), русскоязычные версии опросников «Осознание болезни» — «Insight Scale for Psychosis» (ISP), «Отношение к лекарственным препаратам» — «Drug attitude inventory» (DAI-10). Проведено кроссекционное исследование 86 пациентов с эндогенными психическими заболеваниями (биполярное аффективное расстройство и расстройства шизофренического спектра).

РЕЗУЛЬТАТЫ: С помощью «Опросника для оценки феномена самостигматизации психически больных» установлено, что на начальном этапе заболевания наибольший уровень самостигматизации характерен для пациентов с биполярным аффективным расстройством (M±σ=1,22±0,73; Me [Q1; Q3]=1,10 [0,83; 1,60]), наиболее низкий выявлен у пациентов с расстройствами шизофренического спектра (M±σ=0,86±0,53; Me [Q1; Q3]= 0,77 [0,31; 1,25]). Пациенты с шизофренией и шизоаффективным расстройством и длительностью заболевания более 5 лет, участвующие в долгосрочной комплексной программе психосоциальной реабилитации, также продемонстрировали высокие показатели самостигматизации (M±σ=1,20±0,57, Me [Q1; Q3]= 1,26 [0,89; 1,47]). В изученных группах обнаружены различия в структуре компонентов самостигматизации пациентов и их выраженности и получены достоверные корреляционные связи между показателями самостигматизации, отношением пациентов к имеющемуся психическому расстройству и получаемому лечению.

ЗАКЛЮЧЕНИЕ: Результаты проведенного исследования уточняют и расширяют имеющиеся знания об особенностях самостигматизации у пациентов с различными эндогенными расстройствами на разных этапах заболевания. Полученные данные могут послужить основой для дальнейших исследований, а также для использования в комплексном психосоциальном лечении таких пациентов.

Keywords: *self-stigma; schizophrenia; schizoaffective disorder; bipolar affective disorder; first episode psychosis*
Ключевые слова: *самостигматизация; шизофрения; шизоаффективное расстройство; биполярное аффективное расстройство; первый психотический эпизод*

INTRODUCTION

An analysis of publications in international scientific databases (PubMed, Cochrane, Researchgate, Google Scholar) related to stigma and self-stigma in mentally ill patients showed that over the past 10 years (from 2013 to 2023), more than 2,000 papers were published, i.e. almost as many as in the previous 50 years, after the concept of "stigma" was first introduced in the psychiatry lexicon in 1963 [1]. This increase is quite understandable and indicates the relevance and importance of the notion, since the negative consequences associated with the stigma of mentally ill persons cause significant damage not only to the patients themselves, but also to their families, society, and the state. Traditionally, the WHO has considered the fight against stigma and self-stigma in mentally ill patients to be one of the most important areas of modern psychiatry.[1]

[1] World Health Organization (WHO) [Internet]. Comprehensive Mental Health Action Plan 2013–2030. Available from: https://www.who.int/publications/i/item/9789241506021

As a result of stigma (social "ostracism" and social rejection due to existing myths, prejudices, and stereotypes), mentally ill patients tend to develop distrust toward psychiatric services, raise barriers to seeking help, which can result in a deterioration of their clinical state, non-compliance, and adversely affect their social functioning [2]. There are problems with work and studies, social life; the quality of life suffers, while the risk of substance abuse, suicide, and other consequences increases [3, 4]. The response to the disease, related transformations, and a feeling of being "mentally ill" may result in a complex psychological phenomenon known as self-stigma, which is a combination of negative responses, experiences, assessments, and personality changes [2].

Some researchers have stated that patients with endogenous mental illnesses (e.g. schizophrenia, schizoaffective disorder, bipolar affective disorder [BAD], etc.) are more stigmatized and predisposed to self-stigma compared to patients with other psychiatric disorders [5, 6, 7]. All over the world, increased attention is directed at organizing comprehensive care for such patients as early as at the initial stages of their disease [8, 9]. For patients with schizophrenia spectrum disorders, the first five years from the disease onset are considered the most significant in terms of prognosis, treatment efficacy, and outcomes. During this period, despite the intensity of the psychopathology processes, there exists a tendency towards their recurrence and towards the development of chronic disorders, and they are at their highest stage of plasticity and curability [10]. Similar data were obtained in relation to BAD [11]. However, our observations have shown that the patients at the initial disease stages may underestimate the seriousness of their condition and possible social life limitations (due to the lack of criticality), and, consequently, they may be at a higher potential risk of developing stigma and self-stigma. Moreover, changes over time in self-stigma in a patient with a developing mental illness is also of interest. In chronically ill patients, the self-stigma becomes part of clinical manifestations, it worsens their condition, and it leads to more pronounced maladaptation [12].

Self-stigma has been shown to have complex, yet close, links to motivation as regards treatment [13]. The inclusion of elements of a fight against the stigma in psychosocial rehabilitation (PSR) activities increases compliance in patients [14], allows to achieve good adherence to treatment, and helps to avoid many other negative clinical, psychological, and social consequences associated with the disease [15, 16]. However, in terms of the biopsychosocial approach, it is advisable to consider sociodemographic, as well as the clinical and psychological features of self-stigma in order to develop effective, patient-centered medical and rehabilitation programs.

Thus, the relevance of the issue is conditioned by the need for an in-depth study of the problem of self-stigma in patients with various types of endogenous mental illnesses at both early and later stages of the disease and its connection with the specific features of the attitude to their psychiatric disorder and therapy.

This study was based on a general hypothesis holding that the severity and structure of self-stigma are specific, depending on the type of mental illness and its duration. According to a particular hypothesis, there are associations between self-stigma and the patterns of attitudes toward the mental illness and treatment.

The aim of this study was to establish the level and specific features of self-stigma in patients with various types of chronic endogenous psychiatric disorders at different disease stages and to determine the correlation between the level of self-stigma and patient attitude to his/her disease and treatment.

METHODS

Study design

This was an observational comparative cross-sectional study of three groups of patients with endogenous psychiatric disorders.

Setting

The study was conducted at the Mental Health Research Center, mental health facilities in Moscow (Mental-health clinic No. 1 named after N.A. Alexeev, Mental-health clinic No. 4 named after P.B. Gannushkin), as well as at the Regional Charitable Public Organization "Family and Mental Health", between January and November 2023. In order to ensure a high-quality assessment of patients mental state, a clinical psychopathology assessment was conducted by psychiatrists. The assessments using psychometric scales were carried out once beyond the exacerbation period by clinical psychologists, together with psychiatrists.

Patients were recruited to the study in a continuous manner.

The inclusion criteria were as follows: verified diagnosis of bipolar affective disorder (F31.xxx according to the

ICD-10), or schizophrenia spectrum disorder (F20.xxx, F23.xxx, F25.xxx according to the ICD-10); mental illness duration less than five years and a history of three and less hospitalizations for patients with recent disease; disease duration more than five years for chronically ill patients; written voluntary consent of the patient to participate in the study.

The exclusion criteria were as follows: refusal to participate in the study; acute symptoms that prevent any assessment (for patients with schizophrenia spectrum disorders, five and more PANSS scores on each item); concomitant structural brain disorders, and substance abuse.

The patients were allocated to three groups according to their diagnosis and duration of their mental illness.

Group 1 "Schizophrenia spectrum disorders, first episode psychosis" (SSD FEP), (*n*=39) included patients with psychotic schizophrenia spectrum disorders (F20.xxx, F23.xxx, F25.xxx according to the ICD-10) in accordance with the criteria of the first episode psychosis used in this study (duration of illness five years and less, history of three hospitalizations and less). The patients were treated in a daycare department at mental-health clinic No. 1 and No. 4 in Moscow, or as inpatients in the Mental Health Research Center.

Group 2 (BAD) included patients with the F31.xxx diagnoses according to the ICD-10 (*n*=17) at the initial stages of the disease (disease duration five years and less; a history of three hospitalizations and less). The patients were receiving outpatient and inpatient treatment at the Mental Health Research Center.

Group 3 "Schizophrenia spectrum disorders, psychosocial rehabilitation" (SSD PSR), (*n*=30) included patients with schizophrenia spectrum disorders (F20.xxx, F25.xxx according to the ICD-10) at advanced stages of the disease duration of more than five years. Patients in this group were members of the Regional Charitable Public Organization "Family and Mental Health" and participants of a long-term comprehensive psychosocial rehabilitation program conducted by this organization in the community.

Measures

The socio-demographic characteristics of the patient (sex, age, marital status, education level) were analyzed during the study. The data obtained were recorded on a research form for subsequent frequency analysis. Moreover, clinical psychopathology assessment and assessments using clinical psychometric scales and questionnaires were conducted.

Psychometric assessments included the use of the following techniques.

The Positive and Negative Symptom Scale (PANSS) [17] was applied to evaluate the severity of psychopathology symptoms in patients with schizophrenia spectrum disorders; other questionnaires were used with patients from all three groups.

"Questionnaire for Self-Stigma Assessment in Mentally Ill Patients" [18, 19]. The method is aimed at revealing the severity of the self-stigma and determining its structure based on 83 statements related to various areas of a person's psychological and social functioning. They form nine scales: "Overestimation of self-actualization"; "Impairment of self-identity"; "Readiness to be labeled 'mentally ill' as relates to work adaptation"; "De-identification from others in the society"; "Distancing from mentally ill persons in the area of internal activity"; "Readiness to distance oneself from mentally ill persons in the society"; "Overestimation of internal activity"; "Acceptance of the role of a mentally ill person in the area of self-actualization"; and "Mirror self of a mentally ill person in the area of internal activity". The method allows one to investigate the general degree of self-stigmatization, as well as its individual components. The statements are rated by the subject on a direct scale from 0 to 3 with an interval of one, where "0" corresponds to complete disagreement and "3" implies complete agreement. The higher the score, the higher the level of self-stigmatization and its individual components. Furthermore, the following types of self-stigma were assessed: *auto-psychic* (idealization of the period before the onset of the disease, less severe requirements towards oneself); *compensatory* (partial ignoring of mental illness-associated symptoms and exaggerated attribution of failure to "mentally ill" subjects; and *socio-reversive (*associated with changes in personal position and distancing from society).

The *"Insight Scale for Psychosis" (ISP) scale* [20] allows one to assess the illness perception based on the patient's self-reporting. The scale consists of 8 questions, the highest score for each subscale is three, and it corresponds to a high level of agreement with the statements, indicating good illness awareness. The assessment is based on three parameters: the patient's ability to recognize the disease manifestations as symptoms of mental illness; the patient's awareness of mental illness; and the patient's acceptance of the need for treatment.

"Drug Attitude Inventory" (DAI-10) consists of 10 questions and is a shortened version of DAI-30 [21]. The scale includes

five direct and five reverse statements the patient needs to agree or disagree with. The positive and negative scores are summarized. If the resulting total score is positive, this indicates acceptance of the need for drug therapy; the higher the total score, the higher the level of acceptance of the need for treatment.

Statistical analysis

The mathematical and statistical methods implemented in the STATISTICA 12.1.rus software and Excel office package were used to verify and objectify the data. The minimum sample size for the significance level (p=0.05) was determined using the method of Otdelnova KA [22]. The Bonferroni correction (α adjusted=α baseline/3) was applied; and the critical significance level for such comparisons was 0.017 to adjust the estimate of the reliability of the differences in multiple comparisons of three samples. The analysis conducted using the Shapiro-Wilk test showed that the obtained data were not normally distributed; therefore, nonparametric tests were applied. The Mann-Whitney nonparametric test (U-test) was used in the comparative study of quantitative values in two groups, and the Kruskal-Wallis nonparametric test (H-test) (ANOVA) was used for the comparison of three groups. The study results are presented as median values with indication of interquartile ranges; i.e., first (lower) and third (upper) quartiles (Me [Q1; Q3]), the mean value of the parameter taking into account the standard deviation M±σ. The Fisher's exact test (F-test) was used to compare the frequency of categories of qualitative variables between study groups. The strength of possible correlation between qualitative and ordinal variables was assessed using the nonparametric Spearman rank correlation coefficient (r-Spearman).

Ethical approval

The study was conducted in compliance with the principles of the Declaration of Helsinki of the World Medical Association "Ethical Guidelines for Health-related Research Involving Humans" of 1964 (revised in October 1975 — October 2013) and was approved by the local ethics committee of Mental Health Research Center (minutes No. 914 of November 21, 2023). All the patients included in the study had provided written voluntary informed consent for participation in the study and processing of their personal data.

RESULTS

Sample characteristics

The analysis of socio-demographic parameters (see Table 1) showed that younger persons prevailed among patients at the initial disease stages (H=28.93; df=2; p=0.0001). Among patients with SSD PSR, there were older subjects ($U_{SSD\ FEP\ vs\ SSD\ PSR}$=134.50; p=0.00011; $U_{BAD\ vs\ SSD\ PSR}$=18.00; p=0.0001). However, a comparative analysis of age subgroups in the SSD FEP and BAD groups showed no significant differences (U=245.00; p=0.2020), which allowed us to assign the subjects at the initial disease stages to one age category.

The analysis of the percentages of male and female subjects, depending on the duration of the mental illness, did not demonstrate any differences at the level of the statistical significance calculated by the F-test ($p_{SSD\ FEP\ vs\ BAD}$=0.6296; $p_{SSD\ FEP\ vs\ SSD\ PSR}$=0.4965; $p_{BAD\ vs\ SSD\ PSR}$=0.3417).

The patients in all groups had quite a high level of education, with no differences in terms of this parameter ($p_{SSD\ FEP\ vs\ BAD}$=0.2413; $p_{SSD\ FEP\ vs\ SSD\ PSR}$=0.7138; $p_{BAD\ vs\ SSD\ PSR}$=0.3809).

Before the onset of a psychiatric disorder, patients with SSD FEP and BAD were more likely to be involved in a qualified occupation and studies than patients

Table 1. Patient sociodemographic characteristics

Parameter	Patient groups		
	SSD FEP ***n*=39**	**BAD** ***n*=17**	**SSD PSR** ***n*=30**
Age (years) m±σ Me [Q1; Q3]	 25.53±4.56; 25 [22; 29]	 28.95±8.53; 29 [22; 35]	 42.21±10.36; 40 [34; 50]
Sex			
male, *n* (%)	16 (41.02%)	5 (29.41%)	16 (53.33%)
female, *n* (%)	23 (58.98%)	12 (70.59%)	14 (46.67%)
University education/undergraduate, *n* (%)	16 (41.03%)	10 (58.82%)	14 (46.67%)
Married/has a partner, *n* (%)	6 (15.38%)	2 (11.76%)	3 (10.00%)
Work/studies before the onset of a psychiatric disorder, *n* (%)	19 (48.72%)	11 (64.71%)	5 (16.67%)

Table 2. PANSS scores in patients with schizophrenia spectrum disorders with different disease durations

Parameter	Patients SSD FEP (*n*=39) m±σ; Me [Q1; Q3]	Patients SSD PSR (*n*=30) m±σ; Me [Q1; Q3]	U	*p*
P-1 Delusions	2.08±0.87 2 [1; 3]	1.09±0.11 1 [1; 1]	132.0	0.000002
P-2 Judgement disorders (conceptual disorganization)	2.26±1.02 2 [1; 3]	1.17±0.48 1 [1; 1]	177.5	0.000041
P-3 Hallucinatory behavior	1.69±0.69 2 [1; 2]	1.13±0.34 1 [1; 1]	255.0	0.002633
P-4 Excitement	1.64±0.78 1 [1; 2]	1.11±0.07 1 [1; 1]	252.0	0.002288
P-5 Grandiosity	1.51±0.64 1 [1; 2]	1.12±0.2 11 [1; 1]	253.0	0.004489
P-6 Suspiciousness	2.08±1.01 2 [1; 3]	1.13±1.33 1 [1; 1]	205.5	0.000209
P-7 Hostility	1.46±0.60 1 [1; 2]	1.04±0.25 1 [1; 1]	294.5	0.014344
Composite score, “Positive symptoms” subscale	12.72±4.22 12 [10; 15]	7.42±0.93 7 [7; 7.5]	100.5	0.000001
N-1 Blunted affect	2.54±0.91 3 [2; 3]	2.96±0.62 3 [3; 3]	342.0	0.075691
N-2 Emotional withdrawal	2.51±1.05 2 [2; 3]	2.75±0.89 3 [2; 3]	401.5	0.350238
N-3 Poor rapport	2.10±1.12 2 [1; 3]	3.00±0.88 3 [2.5; 3.5]	253.0	0.002398
N-4 Passive/apathetic withdrawal	2.49±1.02 2 [2; 3]	2.88±0.85 3 [2;3]	362.0	0.135388
N-5 Difficulty in abstract thinking	2.00±0.79 2 [1; 3]	3.25±1.29 3 [2.5; 4]	199.5	0.000149
N-6 Lack of spontaneity conversation	1.82±0.82 2 [1;2]	2.95±1.42 3 [2; 4]	243.5	0.001523
N-7 Stereotyped thinking	1.83±0.76 2 [1; 2]	3.20±1.47 3 [2; 4.5]	210.5	0.000275
Composite score, “Negative symptoms” scale	15.28±5.38 15 [12; 19]	21.00±5.05 21 [16.5; 24.5]	201.5	0.000167
G-1 Somatic concern	2.05±0.92 2 [1; 3]	2.45±0.97 2 [2; 3]	354.5	0.109746
G-2 Anxiety	2.74±0.82 3 [2; 3]	2.52±0.86 2 [2; 3]	421.5	0.515009
G-3 Guilt feelings	2.18±1.10 2 [1; 3]	1.38±0.57 1 [1; 2]	262.5	0.003715
G-4 Tension	2.74±0.88 2 [1; 3]	2.58±0.77 2.5 [2; 3]	411.0	0.423902
G-5 Mannerisms and posturing	1.85±0.74 2 [1; 2]	1.46±0.76 1 [1; 1.5]	315.0	0.030897
G-6 Depression	2.41±1.12 2 [2; 3]	2.12±0.85 2 [1.5; 3]	415.5	0.461743
G-7 Motor retardation	2.03±0.99 2 [1; 3]	1.67±0.85 1 [1; 2]	352.0	0.102108
G-8 Uncooperativeness	1.64±0.99 1 [1; 2]	1.33±0.64 1 [1; 1.5]	397.0	0.318368
G-9 Unusual thought content	2.33±1.13 2 [1; 3]	2.67±1.13 3 [2; 3]	357.5	0.119500
G-10 Disorientation	1.59±0.68 1 [1; 2]	1.09±0.12 1 [1; 1]	240.0	0.001282
G-11 Poor attention	2.13±1.03 2 [1; 3]	2.91±0.83 3 [2; 3.5]	258.0	0.003026

Parameter	Patients SSD FEP (*n*=39) m±σ; Me [Q1; Q3]	Patients SSD PSR (*n*=30) m±σ; Me [Q1; Q3]	U	*p*
G-12 Lack of judgement and insight	2.00±1.00 2 [1; 3]	3.21±1.06 3.5 [2.5; 4]	195.5	0.000118
G-13 Disturbance of volition	2.21±0.83 2 [2; 3]	3.37±0.76 3 [3; 4]	156.0	0.000010
G-14 Poor impulse control	1.64±0.74 1 [1; 2]	2.87±0.89 3 [2; 3.5]	163.0	0.000016
G-15 Preoccupation	2.44±1.07 2 [2; 3]	2.83±1.19 3 [2; 3]	353.5	0.106638
G-16 Active social avoidance	2.26±0.97 2 [2; 3]	1.87±1.06 1.5 [1; 3]	355.0	0.111326
Composite score, "General psychopathology" scale	34.23±10.41 33 [27; 40]	36.51±5.821 35 [33.5; 40]	372.5	0.178762
PANSS total score	62.23±18.28 60 [49; 74]	64.19±9.91 63.5 [58; 71]	389.0	0.266549

with SSD PSR ($p_{\text{SSD FEP vs BAD}}$=0.1181; $p_{\text{BAD vs SSD PSR}}$=0.0371; $p_{\text{SSD FEP vs SSD PSR}}$=0.060). Family relationships were rare in patients from all three groups, and no significant difference was noted for this parameter ($p_{\text{SSD FEP vs BAD}}$=0.6943; $p_{\text{SSD FEP vs SSD PSR}}$=0.5913; $p_{\text{BAD vs SSD PSR}}$=0.3718).

Assessment using the PANSS (see Table 2) and clinical assessment by a psychiatrist during the study showed that residual productive symptoms prevailed at the initial stages of schizophrenia spectrum disorders (SSD FEP).

The above-mentioned symptoms included incompletely reduced delusional concepts, judgment disorders, some hallucinatory phenomena, agitation, mild delusions of grandeur, suspiciousness, and hostility, which was also reflected in higher scores in all seven subscales (P1-P7) of the PANSS in patients with SSD FEP.

In patients with SSD PSR, negative symptoms prevailed. Poor rapport (N-3), difficulty with abstract thinking (N-5), lack of spontaneity in conversation (N-6), and stereotyped thinking were observed (N-7).

Among general psychopathology symptoms, SSD PSR patients showed more pronounced disorientation (G-10), attention deficit (G-11), lack of judgement and insight (G-12), significant disruption of volition (G-13), and poor impulse control (G-14).

Characteristics of self-stigma in the study groups

The results of the analysis of the structure of self-stigma and the severity of its components in the study groups are shown in Table 3.

The most elevated general level of self-stigma was observed in patients with BAD, which was significantly different compared to those with SSD FEP. In this group, the following components were found to be the most pronounced: "De-identification", "Overestimation of self-actualization", "Overestimation of internal activity", and "Readiness to distance oneself from mentally ill persons in the society". This combination was characterized by the predominance of the auto-psychic self-stigma type.

Patients with SSD FEP had a relatively low level of self-stigma in general and its structural components, in particular. The lowest severity of self-stigma was observed in the following scales: "Mirror self of a mentally ill person in the area of internal activity", "Acceptance of the role of a mentally ill person in the area of self-actualization", "De-identification from others in the society", "Distancing from mentally ill persons in the area of internal activity", and "Restriction of work adaptation of mentally ill persons". Different forms of self-stigma, autopsychic, compensatory, and socio-reversive forms, were mild.

Patients with SSD PSR were shown to have an elevated level of self-stigma. The leading components in its structure were "Overestimation of self-actualization", "Readiness to distance oneself from mentally ill persons in the society", "Distancing from mentally ill persons in the area of internal activity", and "Impairment of self-identity". The auto-psychic form of self-stigma was the most pronounced in them, as well as in patients with BAD; however, the levels of compensatory and socio-reversive forms were also high.

Correlation between the level of self-stigma and patients' attitude toward the disease and treatment

The results of the assessment of patients attitudes toward the disease and treatment received are shown in Table 4.

No significant differences were found in all 3 groups in terms of the ISP parameter "Need for treatment awareness".

Table 3. Comparison of the severity of self-stigma structural components in the study groups according to the data of "Questionnaire for Self-Stigma Assessment in Mentally Ill Patients"

Parameter	Patients SSD FEP (*n*=39) m±σ; Me [Q1; Q3]	Patients BAD (*n*=17) m±σ; Me [Q1; Q3]	Patients SSD PSR (*n*=30) m±σ; Me [Q1; Q3]	U, *p* (Mann-Whitney)			H at df=2; *p* (Kruskal-Wallis)
				SSD FEP vs BAD	SSD FEP vs SSD PSR	BAD vs SSD PSR	
Component 1. Overestimation of self-actualization	1.05±0.74 1.00 [0.36; 1.55]	1.84±0.81 1.82 [1.27; 2.45]	1.48±0.78 1.50 [1.00; 2.00]	139.50 0.00212	139.00 0.012942	185.50 0.126197	11.2254 0.0037
Component 2. Violation of self-identity	0.82±0.65 0.67 [0.22; 1.44]	1.37±0.77 1.33 [0.78; 2.00]	1.17±0.59 1.17 [0.89; 1.56]	179.50 0.012901	379.50 0.056384	228.00 0.556294	6.5312 0.0382
Component 3. Restriction of work adaptation of mentally ill persons	0.80±0.57 0.86 [0.29; 1.29]	1.07±0.83 1.00 [0.43; 1.57]	1.13±0.61 1.14 [0.71; 1.29]	229.00 0.018467	377.00 0.052264	232.00 0.616728	4.3466 0.1144
Component 4. De-identification from others in the society	0.74±0.56 0.83 [0.22; 1.11]	0.93±0.76 0.72 [0.17; 1.28]	1.09±0.68 1.08 [0.61; 1.50]	271.50 0.618884	369.00 0.040735	215.50 0.387369	3.9412 0.1394
Component 5. Distancing from the mentally ill persons in the area of internal activity	0.78±0.49 0.78 [0.44; 1.00]	0.97±0.76 0.78 [0.33; 1.22]	1.20±0.52 1.22 [0.89; 1.56]	265.00 0.532477	284.50 0.001588	175.00 0.076554	10.0796 0.0065
Component 6. Readiness to distance from the mentally ill persons in the society	1.21±0.57 1.17 [0.83; 1.67]	1.24±0.75 1.33 [0.67; 1.50]	1.44±0.72 1.50 [1.17; 1.83]	293.50 0.945567	405.00 0.115835	203.50 0.257271	2.7554 0.2522
Component 7. Overestimation of internal activity	1.21±0.74 1.27 [0.45; 1.91]	1.96±0.87 2.18 [1.45; 2.64]	1.61±0.67 1.73 [1.09; 2.18]	139.50 0.002124	351.00 0.022426	177.50 0.087781	11.8829 0.0026
Component 8. Acceptance of the role of a mentally ill person in the area of self-actualization	0.60±0.48 0.57 [0.14; 1.00]	0.82±0.73 0.71 [0.43; 1.00]	0.81±0.61 0.79 [0.29; 1.29]	266.50 0.551865	419.00 0.165053	240.50 0.755289	1.8538 0.3958
Component 9. "Mirror self of a mentally ill person in the area of internal activity"	0.30±0.40 0.00 [0.00; 0.60]	0.31±0.82 0.00 [0.00; 0.20]	0.54±0.61 0.30 [0.00; 1.00]	255.00 0.412615	432.00 0.223525	187.00 0.104518	3.4201 0.1809
Auto-psychic type	1.13±0.72 1.05 [0.45; 1.64]	1.90±0.82 1.91 [1.45; 2.50]	1.55±0.68 1.61 [1.23; 2.00]	134.50 0.001525	349.00 0.020921	183.50 0.115717	12.1452 0.0023
Compensatory type	0.93±0.46 0.92 [0.46; 1.34]	1.09±0.72 1.00 [0.59; 1.49]	1.25±0.57 1.30 [0.95; 1.56]	258.00 0.446789	336.50 0.013365	205.00 0.273074	5.9742 0.0504
Socio-reversive type	0.62±0.49 0.42 [0.17; 1.02]	0.85±0.73 0.77 [0.38; 1.11]	0.90±0.55 0.91 [0.43; 1.20]	237.00 0.241829	370.00 0.042046	221.00 0.458229	4.5119 0.1048
Total score	0.86±0.53 0.77 [0.31; 1.25]	1.22±0.73 1.10 [0.83; 1.60]	1.20±0.57 1.26 [0.89; 1.47]	209.00 0.086048	357.50 0.027981	248.00 0.885566	5.7806 0.0556

Table 4. Attitudes toward drug therapy and illness in patients with endogenous chronic disorders depending on the type of mental illness and treatment duration (using the ISP and DAI-10)

Parameter	Patients SSD FEP (*n*=39) m±σ; Me [Q1; Q3]	Patients BAD (*n*=17) m±σ; Me [Q1; Q3]	Patients SSD PSR (*n*=30) m±σ; Me [Q1; Q3]	U, *p* (Mann-Whitney)			H at df=2; *p* (Kruskal-Wallis)
				SSD FEP vs BAD	SSD FEP vs SSD PSR	BAD vs SSD PSR	
Need for treatment awareness (ISP)	2.94±0.91 3.00 [2.00; 4.00]	3.03±0.70 3.50 [2.50; 3.50]	3.17±0.79 2.25 [2.50; 4.00]	320.50 0.848772	379.5 0.514655	405.50 0.369974	0.8943 0.6394
Symptom attribution (ISP)	2.59±1.19 3.00 [2.00; 4.00]	3.35±0.79 4.00 [3.00; 4.00]	3.20±0.78 3.00 [3.00; 4.00]	208.50 0.016431	333.50 0.047519	182.00 0.538054	7.0838 0.0290
Illness awareness (ISP)	2.31±0.97 2.00 [1.00; 3.00]	3.59±0.61 4.00 [3.00; 4.00]	3.21±1.14 4.00 [3.00; 4.00]	128.00 0.000193	265.00 0.003028	174.00 0.442831	17.5539 0.0002
Drug attitude (DAI-10).	1.44±3.46 2.00 [-2.00; 4.00]	3.88±3.27 3.50 [2.50; 3.50]	3.25±4.36 4.00 [1.00; 7.00]	202.00 0.015291	288.50 0.016228	196.00 0.840198	7.7980 0.01653

Note: ISP — Insight Scale for Psychosis; DAI-10 — Drug attitude inventory.

Table 5. Correlation matrix of the results obtained using the DAI-10 and ISP scales according to the data of "Questionnaire for Self-Stigma Assessment in Mentally Ill Patients"

Spearman correlation coefficient (*r*)												
	Drug Attitude Inventory (DAI-10)			Symptom attribution (ISP)			Illness awareness (ISP)			Need for treatment awareness (ISP)		
Parameter/Group	**SSD FEP**	**BAD**	**SSD PSR**	**SSD FEP**	**BAD**	**SSD PSR**	**SSD FEP**	**BAD**	**SSD PSR**	**SSD FEP**	**BAD**	**SSD PSR**
Component 1. Overestimation of self-actualization	-0.16	-0.18	-0.45*	0.01	0.22	-0.13	0.58*	0.54*	0.22	0.14	0.02	-0.21
Component 2. Impairment of self-identity	-0.12	-0.31	-0.31	-0.12	0.32	-0.17	0.47*	0.64*	0.10	0.05	-0.03	-0.23
Component 3. Restriction of work adaptation of mentally ill persons	-0.03	-0.21	-0.21	-0.07	0.27	-0.01	0.33	0.16	0.36	-0.05	0.03	0.07
Component 4. De-identification from others in the society	-0.11	-0.32	-0.46*	-0.04	0.08	-0.09	0.61*	0.37	0.11	0.06	0.12	-0.33
Component 5. Distancing from the mentally ill persons in the area of internal activity	0.10	-0.18	-0.41*	-0.17	0.28	0.00	0.44*	0.41	0.23	-0.07	0.10	-0.15
Component 6. Readiness to distance from the mentally ill persons in the society	0.03	-0.26	-0.03	-0.19	0.28	0.12	0.22	0.47	0.43*	-0.20	0.06	0.26
Component 7. Overestimation of internal activity	-0.25	-0.39	-0.36	0.08	0.19	-0.10	0.52*	0.54*	0.23	0.19	0.05	-0.07
Component 8. Acceptance of the role of a mentally ill person in the area of self-actualization	-0.04	-0.25	-0.41*	-0.08	0.11	-0.09	0.45*	0.20	-0.04	-0.06	0.05	-0.42*
Component 9. "Mirror self of a mentally ill person in the area of internal activity"	-0.06	-0.44	-0.65*	-0.05	0.06	-0.10	0.27	0.28	-0.08	-0.11	-0.10	-0.57*
Auto-psychic type	-0.23	-0.29	-0.45*	0.08	0.24	-0.11	0.57*	0.61*	0.22	0.17	0.02	-0.18
Compensatory type	0.06	-0.25	-0.19	-0.16	0.25	0.05	0.55*	0.36	0.33	-0.13	0.16	-0.46*
Socio-reversive type	-0.06	-0.27	-0.58*	-0.08	0.18	-0.17	0.26	0.32	0.01	0.01	0.10	0.28
Total score	-0.09	-0.28	-0.43*	-0.02	0.18	-0.08	0.56*	0.46*	0.12	0.06	0.09	-0.42*

Note: * r-Spearmen's at $p \leq 0.01$.

However, patients with SSD FEP tended to possess lower Drug Attitude Inventory (DAI-10) scores, which set a distinction between them and the patients in the BAD and SSD FEP groups. A similar tendency was observed for the ISP parameter "Illness awareness". Patients with SSD FEP showed significantly lower results compared to patients in the BAD and SSD FEP groups.

The correlation analysis between the scales of "Questionnaire for Self-Stigma Assessment in Mentally Ill Patients" and the ISP and DAI-10 parameters showed moderate direct and inverse correlations (see Table 5).

Patients with SSD FEP demonstrated multiple, significant direct moderate correlation between the parameters of "Disease awareness" of the ISP and self-stigma parameters. Patients with BAD tended to show less such correlation. There were only a few of those in the SSD PSR group.

SSD PSR group patients demonstrated multiple, significant moderate reverse correlations between the ISP parameter of "Need to treatment awareness", as well as the "Drug Attitude Inventory" (DAI-10) scores, with the parameters of the "Questionnaire for Self-Stigma Assessment in Mentally Ill Patients". No such correlations were reveled in the BAD and SSD PSR groups.

DISCUSSION

The results of the study confirmed the general hypothesis that there are differences in the level and structure of self-stigma in patients with endogenous chronic mental illnesses, depending on their type and disease duration.

The most elevated general level of self-stigma was observed in the BAD group. The most pronounced structural components of self-stigma in these patients included idealization (overestimation) of their own activity and realization of their abilities before the onset of the disease. Patients believed that, because of their mental illness, they had lost the opportunity to engage in pleasurable experiences, activity, and productivity, and their prospects for success in learning and professional activities were

significantly reduced. The assessment of their interpersonal relationships showed that the patient has doubts in their ability to keep friendship or maintain family relationships. Idealization of the pre-disease period of life in patients with BAD and underestimation of their own actual capabilities led to a pessimistic view of their future, identity disorders, low expectations on themselves, and secondary decrease in activities, which, apparently, was no longer directly related to affective symptoms. This combination was characterized by the predominance of the auto-psychic self-stigma form.

Our results correlate with the data of meta-analyses, which have shown that high levels of self-stigma are typical of BAD patients as early as at the initial stages of the disease [24; 25]. At the same time, these publications emphasize the fact that patients' intense experiences and ongoing changes are associated not only with the severity of depressive symptoms and decreased quality of life, but also with an overly critical attitude towards their altered internal and external life conditions.

Patients with initial stages of schizophrenia (SSD FEP group) had a relatively low level of self-stigma in general, and its structural components in particular. Those patients believed that their mental illness and related changes would not noticeably affect their perception of the external world, limit their creative, professional, and social activities, or act as an obstacle to self-actualization. These patients tended to distance themselves from the image of "a mentally ill person", without accepting the restrictions that are associated with a mental illness and with underestimation of possible social and interpersonal problems, and they demonstrated a desire to distance themselves from mentally ill persons.

Various forms of self-stigmaautopsychic, compensatory, and socio-reversive forms in patients with schizophrenia spectrum disorders at the initial stages of the disease were mild.

It was noteworthy that patients with schizophrenia spectrum disorders at the late stages of the disease (SSD PSR group), despite their long-term psychological and social rehabilitation, as well as patients with BAD, demonstrated an elevated level of self-stigma. The leading components in its structure were idealization and overestimation of their internal activity and self-actualization before the disease onset. In such a mechanism, maintaining relatively adequate self-esteem is possible only by justifying one's failure solely by the effects of their mental illness. In addition, this patients cohort tends to have a generalized projection of their failure on all mentally ill persons and the perception of such subjects as people who are not capable of self-realization in interpersonal relationships, as well as in the professional or social spheres.

Changes in the self-identity and development of restrictive behavior resulted in a secondary benefit from the mental illness, obviating the need for adequate activity. The auto-psychic form of self-stigma was the most pronounced in them, as well as in patients with BAD; however, the level of compensatory form was also high.

In general, the results obtained in patients with schizophrenia spectrum disorders depending on the disease are consistent with the literature data [25–27] and demonstrate that compensatory and self-limiting types of self-stigma tend to increase at later stages of the disease.

As for the particular hypothesis, the study showed that the patients were aware of the need for treatment regardless of the type and duration of the psychiatric disorder. However, patients with BAD and chronically ill patients with schizophrenia spectrum disorders (SSD PSR group) tended to have a more positive attitude toward drug therapy compared to those in the initial stages of schizophrenia (SSD FEP group), for whom the expressed agreement with the necessity of treatment came with a generally negative attitude towards drug therapy and poor understanding of the need to accept it. These results indicate that patients with BAD and chronically ill patients with schizophrenia spectrum disorders have a better awareness of their mental illness symptoms and understanding of the changes in their life activities associated with it compared to patients in the early stages of mental illness, for whom greater awareness of mental illness symptoms leads to increased self-stigma. It is possible that the perception of the generalized image of a "mentally ill person" as a person who is unsuccessful in various spheres of life, has lost activity, is not capable for self-realization, as well as the fear of being socially "ostracized" by the mere fact of having a mental illness, leads to the denial of the disease in general, as it plays a compensatory role and prevents the emergence of internal tension. A similar tendency was observed in BAD patients. Chronically ill patients with schizophrenia spectrum disorders (SSD PSR group) showed a reverse correlation between an adequate attitude towards drugs and self-stigma. Acceptance of the position of "a mentally ill person" with the development of a socio-reversive type of self-stigma, changes in the personal station, and distancing

from society lead to an increasing distortion of perceptions related to the possibilities of receiving psychiatric care. Some observational studies also reached similar results [28, 29], which emphasizes the need to fight stigma at all stages of endogenous mental illnesses.

Strengths and limitations

The strength of the study is the identification of the level of severity and structure of self-stigma in patients with endogenous psychiatric disorders, depending on their type and disease duration using reliable assessment tools. Correlations between self-stigma and patients attitude to their mental illness and their treatment were identified.

However, this study had a number of limitations that need to be taken into account when interpreting the data, as well as when planning further research. Moreover, it is advisable to use large samples and strive for greater sample homogeneity, taking into account the socio-demographic and clinical parameters of the subjects included in the comparative studies. Thus, a subgroup with the diagnosis F23.xxx can be distinguished from the group of patients at the initial disease stages. When comparing groups of patients with schizophrenia spectrum disorders depending on disease duration, a cohort with a diagnosis of F25 can be considered. BAD patients can be classified as BAD-1 and BAD-2 subgroups, which makes the results more differentiated. It is reasonable to expand the study with a sample of patients with BAD at late stages of the disease. In order to make the data representative, it is advisable to envisage collecting data from various mental health facilities. Since the exploratory study evaluated a significant number of parameters for a comprehensive self-stigma assessment, a possible adjustment for multiple comparisons should be considered.

CONCLUSION

The results of this study contribute to a better understanding of the specific features of self-stigma in patients with various endogenous disorders at different stages of the disease. The highest level of self-stigma was observed in patients with BAD; the lowest level, in patients at the initial stages of schizophrenia spectrum disorders. Patients with schizophrenia spectrum disorders and a disease duration of more than five years participating in a long-term comprehensive psychosocial rehabilitation program also demonstrated high rates of self-stigma. The study revealed differences in the structure and severity of self-stigma in the studied cohorts; the correlations with the specific features of patients' attitudes towards the mental illness and drug therapy were also evaluated.

The elevated level of self-stigma demonstrated in this study in patients with BAD and schizophrenia spectrum disorders makes it relevant, on the one hand, to increase (through psychological education) awareness of the disease and the possible reasonable limitations associated with it, to improve our understanding of the need for treatment, and, on the other hand, to prevent self-stigma and self-labeling as "mentally ill" for patients at initial stages of endogenous mental illnesses. The results of this study may serve as a basis for a further thorough search for the specific features of self-stigma development in mentally ill patients and contribute to the development of techniques to combat the stigma.

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