

FAMILY HISTORY IN PATIENTS WITH SCHIZOPHRENIA AND DEPRESSIVE SYMPTOMS

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Abstract: *Background:* Depressive symptoms are common in schizophrenia and they can occur during any phase of the disorder. Some authors report an association between depression in schizophrenic patients and a positive family history of depression.

Aim: The aim of this study was to evaluate depressive symptoms in schizophrenic patients and to compare their family history with that in patients with depressive disorder.

Material and Methods: The examined group consisted of 50 patients with schizophrenic disorder, both inpatients and outpatients treated at the University Psychiatry Clinic who had prominent depressive symptoms (total score > 7 on 17-item Hamilton Depression Rating Scale). The control group consisted of 50 patients with depressive disorder. Differential diagnosis was established on the basis of ICD-10 diagnostic criteria. Patients were evaluated with PANSS, 17-item Hamilton Depression Rating Scale (HAMD) and a questionnaire for demographic and clinical data.

Results: The clinical depression seen in patients with schizophrenia differed significantly from that in patients with depressive disorder. Depressive symptomatology was significantly more frequently reported in a family history of schizophrenic patients with depressive symptoms than in patients with depressive disorder.

Conclusion: Schizophrenic patients with prominent depressive symptoms have significantly more frequently a positive family history of depression compared to patients with depressive disorder.

Key words: schizophrenia, depressive disorder, family history.

Introduction

Depressive symptomatology has been recognized as a feature of schizophrenia since Bleuler first introduced this term in 1908. He described dep-

ressive symptoms as either directly triggered by the very process of the disorder in the acute stages (i.e. as essential symptoms of schizophrenia) or as secondary symptoms of this disorder [1].

Depression is common among patients with schizophrenia and is associated with a wide range of poor outcomes, including psychotic relapse and suicide. While generally patients suffering from schizophrenia do not fulfil all the criteria for a major depressive disorder, they often present clinically significant depressive symptoms [2].

ICD-10 classification addresses the coexistence of schizophrenia and depression in two diagnostic categories: post-schizophrenic depression (F20.4) and schizoaffective disorder, depressive type (F25.1) [3]. In 1994, DSM classification defined a post-psychotic depression, which is called a post-psychotic depressive disorder of schizophrenia in DSM-IV classification [3–4]. This is, however, a limited approach since there are other depressive conditions in the context of schizophrenia that have not been covered by these diagnostic classifications [3].

Depressive symptoms in patients with schizophrenia can be observed during each phase of the disorder: in the prodromal phase, the acute episode, the post-psychotic phase and in the chronic phase, over the long-term course. Depressive symptoms are frequent in the prodromal period but they are most commonly associated with the acute phase of the schizophrenic disorder. These symptoms most frequently occur before the beginning of the treatment and in as many as half the patients with the first psychotic episode who have not started medication [5–6]. In the course of the chronic phase of the disorder, the incidence of depressive symptoms is lower and ranges from 4 to 25% [7–9]. Post-psychotic depression is the occurrence of symptoms during the residual phase of schizophrenia [4, 10].

Clear differentiation of depressive symptoms from deficient stages and negative schizophrenic symptoms is essential and important as well as indicating adequate treatment for reducing the risk of further morbidity and mortality [5, 11].

Depression in schizophrenic patients has been shown to be associated with a family history of depression [1–2, 5, 12–13]. Some authors have described a genetic predisposition: depression during schizophrenia was correlated with a positive family history of depression [12]. It was even assumed that a psychopathological spectrum that covers unipolar depression, bipolar disorder, schizoaffective disorder and schizophrenia, accompanied by significant affective symptoms, could result from a mutation in a gene of a specific chromosomal region [3, 12, 14]. Many researchers report a strong genetic predisposition and accentuate that patients with schizophrenia and depressive symptoms more frequently have first-line relatives with unipolar depression [13, 15].

Aims of the paper

- To evaluate the presence of depressive symptoms in patients with schizophrenia.
- To compare family history in schizophrenic patients with depressive symptoms and family history in patients with depressive disorder.

Material and Methods

This cross-sectional study included a total of 100 patients from both genders, treated as inpatients or outpatients at the University Psychiatry Clinic. Subjects were divided into 2 groups:

1. The examined group consisted of 50 schizophrenic patients who presented depressive symptomatology. Depressive symptoms were evaluated with the 17-item Hamilton Rating Scale for Depression.

Inclusion criteria were: diagnostic entity –schizophrenic disorder by diagnostic criteria of ICD-10 (F20.0 – F20.9), total score higher than 7 on the 17-item Hamilton Rating Scale for Depression and age between 25 and 65. Exclusion criteria were: patients with schizoaffective disorder, depressive type (F25.1) and patients with organic psychosyndrome.

2. The control group consisted of 50 patients with depressive disorder. Inclusion criteria were: diagnostic entity – recurrent depressive disorder by ICD-10 (F33.0 – F33.9), total score higher than 7 on the 17-item Hamilton Rating Scale for Depression and age between 25 and 65. Exclusion criteria were: patients with bipolar affective disorder (F31) and patients with organic psychosyndrome.

The investigation was conducted through the following structural and clinical test methods:

- Structured psychiatric clinical interview;
- Psychiatric rating scales for clinical evaluation of prominence of symptomatology: 17-item Hamilton Rating Scale for Depression (HAMD) and PANSS (Positive And Negative Syndrome Scale);
- Non-standardized questionnaire for socio-demographic and clinical data collection, designed for the purposes of this study.

Several statistical methods were used for the statistical analysis of the data obtained in the course of the study: in the processing of the series with numerical features the measures of central tendency have been calculated; in the series with attributive features the structure percentages have been determined; for determining the significance of the differences in the analysed parameters

independent sample tests were used (t-test for independent samples, Kolmogorov-Smirnov test, Chi-square test). Values of $p < 0.05$ were considered to be statistically significant.

Results

The gender structure of the patients involved in the study was 24 (48%) males in the examined group and 16 (32%) in the control group. There were 26 (52%) females in the schizophrenic group and 34 (68%) in the group with depressive disorder. The tested difference between the two groups for gender difference was not statistically significant ($p > 0.05$).

Patients in the schizophrenic group had a significantly younger mean age than patients in the control group (Table 1).

Table 1

Age of the subjects

Age	N	Mean	Min.	Max.	Std.Dev.	Std.Err.
Examined group	50	43.22	23.0	65.0	11.56	1.63
Control group	50	48.72	25.0	65.0	10.89	1.54

t – test for independent samples = -2.45 ; $p = 0,016$

There was a significantly larger number of single patients with schizophrenia than with depressive disorder (Table 2).

Table 2

Marital status of the examinees

Marital status	Examined group		Control group	
	N	%	N	%
Single	26	52.0	5	10.0
Married	16	32.0	41	82.0
Divorced	5	10.0	2	4.0
Widowed	3	6.0	2	4.0
Total	50		50	

Kolmogorov-Smirnov test $D_{max} = -0.42$; $p < 0.01$

Regarding the clinical characteristics, the study showed that schizophrenic disorder was manifested at a significantly younger age (26.44 ± 7.2 years) in comparison to depressive disorder (42 ± 10.8 years) and it had a statistically significant longer duration (16.8 ± 9.4 years) than the average duration of the disorder in the control group (6.7 ± 5.9). Patients with schizophrenia were much more frequently treated as inpatients and had a significantly larger number of disorder relapses than patients with depressive disorder (Table 3). Prescribed medications contributed to withdrawal or reduction of the disorder symptoms in a significantly larger number of patients with schizophrenic disorder (Table 4).

Table 3

Number of relapses

Number of relapses	median	mean	Min.	Max.	Std.Dev.	Std.Error
Examined group	15.0	12.06	3.0	20.0	5.81	0.82
Control group	5.0	6.28	2.0	25.0	4.01	0.57

t – test for independent samples = 5.78; p = 0.000000

Table 4

Effect of the prescribed medications

Effect of the prescribed medications	Examined group		Control group	
	N	%	N	%
good	43	86.0	31	62.0
poor	7	14.0	19	38.0
Total	50		50	

Yates chi-square = 6.29; df = 1; p = 0.012

Figure 1 presents the distribution of the subjects from both groups regarding a positive family history of mental disorders. In the group with schizophrenia 22% had a positive family history of depression, 20% from the group had family members with schizophrenia, 2% reported dementia and 2% reported alcoholism in the family. In the control group, examinees denied a family history of schizophrenia, 18% of them reported a positive family history of depressive disorder, 4% had family members with dementia and 2% alcoholism. We can conclude that a positive family history of mental disorders was significantly more present among patients of the schizophrenic group and depressive symptoms were more frequently reported in their family history in comparison to the control group.

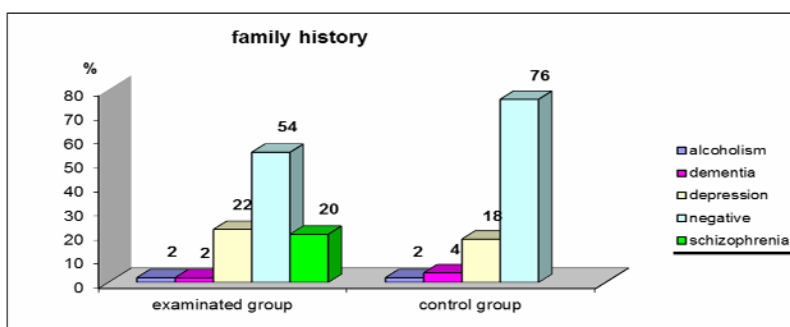


Figure 1 – Family history of mental disorders

Clinical depressive symptoms in patients with schizophrenia were significantly different from those in patients with depressive disorder. Subjects from both groups had a statistically significant difference in the average scores on the Hamilton Depression Scale as a result of the substantially higher registered scores in the control group ($p < 0.01$) (Table 5).

Table 5

Total score on the Hamilton Depression Scale

Total score on HAMD	mean	Min.	Max.	Std.Dev.	Std.Error
Examined group	17.0	9.0	26.0	4.38	0.62
Control group	22.4	11.0	34.0	5.41	0.77

t – test for independent samples = -5.48; $p = 0.00000$

Table 6 shows the predominance of positive/negative symptoms in subjects with schizophrenia, assessed with PANSS (Positive And Negative Syndrome Scale).

Table 6

Predominance on positive/negative PANSS

Predominance on positive/negative PANSS	Subjects with schizophrenia	
	N	%
Predominantly positive	42	84 %
Predominantly negative	6	12 %
Equally present	2	4 %
Total	50	

Discussion

This study confirmed the importance of the presence and manifestation of depressive symptoms in patients with schizophrenia that implies the necessity of timely differential diagnosis in daily practice and adequate treatment management with a goal to reduce the risk of further deterioration of the schizophrenic disorder.

Studies evaluating the incidence of depression in patients with schizophrenia present a variety of incidence rates, ranging from 7 to 75%, which is probably a result of the differences in the methods applied, definition of depression and evaluation of patients in various stages of the schizophrenic disorder [2, 15–17].

The percentage of patients with depressive symptoms among patients with schizophrenia in this study was 54% i.e. 50 of 92 evaluated patients with schizophrenia presented prominent depressive symptoms, assessed objectively using the 17-item Hamilton Rating Scale for Depression (total score over 7).

In the majority of previous studies the percentage of male patients with schizophrenia was higher than the percentage of females, even though the difference was not statistically significant. In patients with depressive disorder the percentage of females was higher than the percentage of males with the same disorder [1, 15, 18]. Although depression is more common in female patients without schizophrenia, numerous studies examining patients with schizophrenia and depressive symptoms showed no significant difference between the genders regarding depression rate [5, 14, 19–21].

In this study the percentage of females predominated in both groups, with a higher difference in the control group. However, the tested difference between the two groups regarding the patients' gender was not statistically significant.

Regarding age, schizophrenic patients were significantly younger in comparison to the patients with depressive disorder, which coincided with the results in other studies [1, 15, 22].

Our results were in agreement with other reports regarding the marital status of the patients. There were statistically more single patients with schizophrenia than patients with depressive disorder [1, 15, 22].

Depression in schizophrenic patients was shown to be associated with a family history of depression. Some authors describe a genetic predisposition: depression in schizophrenia correlated with a positive family history of depression [12]. Many researchers report a strong genetic predisposition and accentuate that patients with schizophrenia and depressive symptoms more frequently have first-line relatives with unipolar depression [13, 15, 22].

Our study showed that a positive family history of mental disorders was significantly more present among patients with schizophrenia. Depressive symptoms were also more frequently reported in their family history in comparison to the control group of subjects. In the group with schizophrenia 22% had a positive family history of depression and 20% of them had family members diagnosed with schizophrenia. In the control group 18% had a positive history of depressive disorder.

Conclusions

- The percentage of patients with depressive symptoms among patients with schizophrenic disorder was 54%.
- In terms of socio-demographic and clinical features, the two groups statistically differed between themselves by age, marital status, age of onset of the disorder, duration of illness, number of relapses and number of hospitalizations.
- Schizophrenic patients with prominent depressive symptoms had a significantly more frequent positive family history of depression in comparison to patients with depressive disorder.
- Clinical depressive symptoms in schizophrenic patients were significantly different from those in patients with depressive disorder.

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Резиме

СЕМЕЈНА АНАМНЕЗА КАЈ ПАЦИЕНТИ СО ШИЗОФРЕНИЈА И ДЕПРЕСИВНИ СИМПТОМИ**Бабинкостова З., Стефановски Б.***Универзитетска клиника за психијатрија, Скопје, Р. Македонија*

Апстракт: *Вовед:* Депресивните симптоми се чести кај пациентите со шизофренија и тие може да се манифестираат во секоја фаза на ова растројство. Некои автори реферираат дека депресијата кај пациентите со шизофренија е асоцирана со позитивна семејна анамнеза за депресија.

Цел: Целта на оваа студија беше евалуација на депресивноста кај шизофренијата, како и компаративна анализа на семејната анамнеза кај пациентите со шизофренија и депресивни симптоми и онаа кај пациентите со рекурентно депресивно растројство.

Материјал и методи: Испитуваната група ја сочинуваа 50 пациенти со шизофренија, амбулантски или хоспитално лекувани на Универзитетската клиника за психијатрија, кои имаа проминентни депресивни симптоми (вкупен скор > 7 на Хамилтоновата скала за депресија со 17 единици), а контролна група беа 50 пациенти со рекурентно депресивно растројство. Дијагностицирањето беше извршено според дијагностичките критериуми на МКБ-10. Пациентите беа евалуирани со PANSS, Хамилтонова скала за депресија со 17 единици (HAMD) и нестандардизиран прашалник за социодемографските и клиничките карактеристики.

Резултати: Клиничките депресивни симптоми кај пациентите со шизофренија сигнификантно се разликуваа од оние кај пациентите со рекурентно депресивно растројство. Депресивната симптоматологија значително почесто беше реферирана во семејната анамнеза на пациентите со шизофренија и депресивност во споредба со пациентите со рекурентно депресивно растројство.

Заклучок: Испитаниците со шизофрено растројство и проминентни депресивни симптоми имаат значително почесто позитивна семејна анамнеза за депресија во споредба со испитаниците со рекурентно депресивно растројство.

Клучни зборови: шизофренија, депресивно растројство, семејна анамнеза.

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