

Family history in chronic psychotic disorders

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Abstract

Objective: Psychosis is a set of symptoms that consist of delusions, hallucinations and thought disorders. In Diagnostic and Statistical Manual of Mental Disorders 5 (DSM 5), psychoses were collected under the title of schizophrenia spectrum and other psychotic disorders. The aim of this study was to investigate the prevalence of a family history of psychiatric disorders in patients with chronic psychosis and to evaluate the groups of these psychiatric disorders.

Material and Methods: A total of 282 patients with chronic psychosis, defined by DSM- 5diagnostic criteria, were included in this study. Sociodemographic parameters and family history of chronic psychosis patients were retrospectively reviewed.

Results: The mean age of the patients was 41.3 years, the mean age of onset of the disease was 22.8 years and the mean number of hospitalizations was 5.78 years. Patient group consisted of 94 (33.3%) males and 188 (66.7%) females. 48.6% (137/282) of patients with chronic psychosis had a history of psychiatric disorder in their first-degree relatives. In the diagnostic groups, there were 1.8% (5/282) schizoaffective disorder, 18.4% (52/282) schizophrenia, 6% (17/282) bipolar disorder, 5.7% (16/282) major depression, 13% , 8 (39/282) unspecified schizophrenia spectrum and other psychotic disorder, 2.5% (7/282) mental retardation, 0.4% (1/282) obsessive-compulsive disorder family history.

Conclusion: This study provides a platform for future studies to contribute to the development of early intervention and prevention approaches in populations at risk for further clarification of the role of family history in individuals with a family history.

Keywords: Psychotic disorder, schizophrenia, family history

Introduction

Psychosis is a set of symptoms that consist of delusions, hallucinations and thought disorders [1]. In DSM 5, psychoses were collected under the title of schizophrenia spectrum and other psychotic disorders [2].

Family, twin and adoption studies show a similar pattern in the spectrum of schizophrenia and other psychotic disorders. Genetic influences in schizophrenia and bipolar disorder partially overlap [3].

The presence of psychosis in family history in schizophrenia patients has a statistically significant relationship with decreased functionality in long-term social and occupation. [4]

A family history of psychiatric disorders may collect by the two ways: family history method [referring to the information of patient or a family member], the family study method (directly questioning the current and past psychiatric symptoms of their relatives).

In family history method specific criteria are provided for the following diagnoses: chronic schizophrenia, remitting schizo-affective disorder, chronic schizoaffective disorder, depressive disorder, manic disorder, senile organic brain syndrome, unspecified functional psychosis, alcoholism, drug abuse, antisocial personality, other psychiatric disorder, and no known mental disorder [5].

The aim of this study was to investigate the prevalence of a family history of psychiatric disorders in patients with chronic psychosis and to examine the groups of these psychiatric disorders.



Methods

This study was conducted using routinely collected clinical data from Community Mental Health Center (CMHC). A total of 282 patients with chronic psychosis (schizophrenia, schizoaffective disorder, unspecified schizophrenia spectrum and other psychotic disorder), defined by DSM-5 diagnostic criteria (Table 1) (6), were included in the study. Sociodemographic parameters and family history of chronic psychosis patients were retrospectively reviewed. We had used family history method and asked any type of psychiatric illness in any of the patient's first-degree relatives (parents, siblings, and offspring) to identify family history.

A total of 282 patients were enrolled in the study, which were recorded by family history method, in a total of 451 patients enrolled to Community Mental Health Center between 2016-2017. The patient exclusion criteria were as follows: being under 18 years of age, dementia, with moderate or severe mental retardation, organic mental disorder and first-episode psychosis. The approval for the study was obtained from the Medical Ethics Committees of the institutions.

Schizophrenia, schizoaffective disorder and unspecified schizophrenia spectrum and other psychotic disorder diagnoses were investigated according to the frequency of psychiatric disorder history in first-degree relatives of the patients.

Statistical Analysis: SPSS 22.0 (IBM Corporation, Armonk, New York, United States) soft ware was used in the analysis of variables. Normal distribution of data was assessed with the Shapiro–Wilk test. Data analysis involved Chi-Square analysis

Results

A total of 282 schizophrenia, schizoaffective disorder, undefined schizophrenia spectrum and other psychotic disorder patients were included in the study. The mean age of the patients was 41.3 years, the mean age of onset of the disease was 22.8 years and the mean number of hospitalizations was 5.78 years. Patient group consisted of 94 (33.3%) males and 188 (66.7%) females. The data of the patients in terms of age, age of onset of illness, number of hospitalizations, marital status, alcohol, smoking status, diagnosis distribution are shown in the tables 2 and 3.

The 48.6% (137/282) of patients with chronic psychosis had a history of psychiatric disorder in their first-degree relatives. In the diagnostic groups, there were 1.8% (5/282) schizoaffective disorder, 18.4% (52/282) schizophrenia, 6% (17/282) bipolar disorder, 5.7% (16/232) major depression, 13.8% (39/282) unspecified schizophrenia spectrum and other psychotic disorder, 2.5% (7/282) mental retardation, 0.4% (1/232) obsessive-compulsive disorder family history. (Table 4)

Table 1: DSM-5 criteria for schizophrenia, schizoaffective disorder, unspecified schizophrenia spectrum and other psychotic disorder

Schizophrenia;

Two or more of the following for at least a one-month (or longer) period of time, and at least one of them must be 1, 2, or 3:

- Delusions
- Hallucinations
- Disorganized speech
- Grossly disorganized or catatonic behavior
- Negative symptoms, such as diminished emotional expression

Impairment in one of the major areas of functioning for a significant period of time since the onset of the disturbance: Work, interpersonal relations, or self-care.

Some signs of the disorder must last for a continuous period of at least 6 months. This six-month period must include at least one month of symptoms (or less if treated) that meet criterion A (active phase symptoms) and may include periods of residual symptoms. During residual periods, only negative symptoms may be present.

Schizoaffective disorder and bipolar or depressive disorder with psychotic features have been ruled out

Schizoaffective Disorder

A major mood episode (either major depression or mania) that lasts for an uninterrupted period of time

Delusions or hallucinations for two or more consecutive weeks without mood symptoms sometime during the life of the illness

Mood symptoms are present for the majority of the illness

The symptoms aren't caused by substance use

Unspecified Schizophrenia Spectrum and Other Psychotic Disorder

Individuals who are experiencing symptoms of schizophrenia or other psychotic symptoms, but do not meet the full diagnostic criteria for schizophrenia or another more specific psychotic disorder

Table 2: Sociodemographic and clinical characteristics of patients

Parameters	Frequency (Total 282 Patients)
Age	41,32±12,33
Sex (male/female)	94/188 %33,3/%66,7
Marital status Married/single	83/199 %29,4/%70,6
Smoking Yes/no	161/121 %57,1/%42,9
Education years)	6,91±4,07
Onset age	22,8±8,9
Hospitalisations	5,78±7,27

Table 3: Patients’ diagnostic groups

Diagnoses	Frequency	%
Schizophrenia	168	59,6
Schizoaffective	43	15,2
Other psychosis	71	25,2
Total	282	100,0

Table 4: Frequency of family history

	No	Count	Diagnosis			Total
			Schizophrenia	Schizoaffective	Other psychosis	
Family History Diagnostic Groups	No	Count	80	22	43	145
		Expected Count	86,4	22,1	36,5	145,0
	Schizoaffective	Count	3	2	0	5
		Expected Count	3,0	,8	1,3	5,0
	Sizofreni	Count	40	7	5	52
		Expected Count	31,0	7,9	13,1	52,0
	Bipolar	Count	8	4	5	17
		Expected Count	10,1	2,6	4,3	17,0
	Major depression	Count	11	1	4	16
		Expected Count	9,5	2,4	4,0	16,0
	Other Psychosis	Count	21	7	11	39
		Expected Count	23,2	5,9	9,8	39,0
	Mental retardation	Count	5	0	2	7
		Expected Count	4,2	1,1	1,8	7,0
	Obsessive Compulsive disorder	Count	0	0	1	1
		Expected Count	,6	,2	,3	1,0
	Total	Count	168	43	71	282
		Expected Count	168,0	43,0	71,0	282,0

Chi -square test value: 19.8, p: 0.13

Discussion

This study investigated the prevalence of a family history of psychiatric disorders in patients with chronic psychosis. Family history was substantially positive in first degree relatives of the patients. Family and twin studies of schizophrenia and psychotic mood disorders found that there is a high relation of psychosis in patients’ families [6]. Similarly, in our study, 48.6% of psychotic patients had a family history of psychiatric disorder and 34% had a history of psychosis.

Life time risk for schizophrenia development increases 8-12 times in first-degree biological relatives of schizophrenia probands [7].

There are studies suggesting that these disorders are combined together in families with bipolar disorder and schizophrenia, and this suggests that there are clear genetic links between psychiatric conditions [8,9]. Some family studies show that there may be a family relationship between schizophrenia and unipolar depression [10]. In our study, a history of 11.7% mood disorder was found and 5.7% of these were major depression.

The limitation of this study is its retrospective design. Also underreporting is a problem. However, we had referred to the information of both patient and one family member.

In Turkey, as in other populations, schizophrenia is a strongly familial disorder, and schizophrenia shares a familial predisposition with a spectrum of clinical syndromes that includes schizoaffective disorder other non affective psychoses.

Conclusion

This study provides a platform for future studies to contribute to the development of early intervention and prevention approaches in populations at risk for further clarification of the role of family history in individuals with a family history.

Conflict of Interest: The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Author's Contributions: ŞŞ, GE: Research concept and design; data collecting, ŞŞ: Preparation of article, and Revisions. All authors approved the final version of the manuscript

Ethical issues: All Authors declare, Originality and ethical approval of research. Responsibilities of research, responsibilities against local ethics commission are under the Authors responsibilities.

References

- Gaebel W, Focus on psychosi Focus on Psychosis. *Dialogues Clin Neurosci.* 2015; 17(1): 9–18.
- Tan N, Van Os J. The schizophrenia spectrum and other psychotic disorders in the DSM-5. *Tijdschr Psychiatr.* 2014;56(3):167-72.
- Cardno AG, Owen MJ . Genetic Relationships Between Schizophrenia, Bipolar Disorder, and Schizoaffective Disorder. *Schizophr Bull.* 2014;40(3):504-515.doi: 10.1093/schbul/sbu016
- Käkelä J, Panula J, Oinas E, Hirvonen N, Jääskeläinen E, Miettunen J. Family history of psychosis and social, occupational and global outcome in schizophrenia: a meta-analysis. *Acta Psychiatr Scand.* 2014;130(4):269-78.
- Andreasen NC, Endicott J, Spitzer RL, Winokur G. The Family History Method Using Diagnostic Criteria Reliability and Validity. *Arch Gen Psychiatry.* 1977;34(10):1229-1235. doi:10.1001/archpsyc.1977.01770220111013
- Tandon R1, Gaebel W, Barch DM, Bustillo J, Gur RE, Heckers S, Malaspina D, Owen MJ, Schultz S, Tsuang M, Van Os J, Carpenter W..Definition and description of schizophrenia in the DSM-5. *Schizophr Res.* 2013 Oct;150(1):3-10. doi: 10.1016/j.schres.2013.05.028.
- Ivleva E, Thaker G, Tamminga CA. Comparing genes and phenomenology in the major psychoses: schizophrenia and bipolar 1 disorder. *Schizophr Bull.* 2008; 34(4):734-42.
- Kendler KS, Gardner CO. The risk for psychiatric disorders in relatives of schizophrenic and control probands: a comparison of three independent studies. *PsycholMed.* 1997; 27(2):411-9.
- Lichtenstein P, Yip BH, Björk C, Pawitan Y, Cannon TD, Sullivan PF, Hultman CM. Common genetic determinants of schizophrenia and bipolar disorder in Swedish families: a population-based study.*Lancet.* 2009; 17; 373(9659):234-9.
- Cosgrove VE, Suppes T. Informing DSM-5: biological boundaries between bipolar I disorder, schizoaffective disorder, and schizophrenia.*BMC Med.* 2013; 14; 11():127.
- Blackwood DH, Fordyce A, Walker MT, StClair DM, Porteous DJ, Muir WJ. Schizophrenia and affective disorders—cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family.*Am J Hum Genet.* 2001; 69(2):428-33.