



## Article

# Correlation Between Family Cohesion and Recurrence in Schizophrenia Patients at the Psychiatry Clinic, dr. Soetomo Hospital

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## ABSTRACT

**Introduction:** Schizophrenia recurrence is caused by many factors, one of which is family factors. Family is very important for people with schizophrenia, where one of the roles of a family is to provide an affective functioning to meet the psychosocial needs of family members. This study was conducted to know the correlation between family cohesion and recurrence in schizophrenia patients at the Psychiatry clinic, Dr. Soetomo Hospital. **Methods:** This research method uses observational-analytic design with cross-sectional approach with a sample of schizophrenia patients at the Psychiatry Clinic, dr. Soetomo Hospital Surabaya in June-August 2020 and met the inclusion criteria. The variables studied were family cohesion and recurrence of schizophrenia. Samples were taken using total sampling with a sample size of 40 research subjects. Sampling was conducted at the Psychiatry Clinic, dr. Soetomo Hospital. Data analysis was performed using the Spearman correlation analysis technique. **Results:** The results of the Spearman correlation analysis showed a correlation coefficient of -0.291 with a significance value of 0.69 ( $p > 0.05$ ). **Conclusion:** It can be concluded that the relationship between the two variables is not unidirectional and there is no significant relationship between family cohesion and recurrence of schizophrenia at the Psychiatry Clinic, dr. Soetomo Hospital.

## Introduction

The number of patients with mental disorders has increased in connection with various kinds of problems experienced, ranging from worsening economic conditions, family conditions, or poor parenting backgrounds to natural disasters. World Health Organization (WHO) states that at least one in four people in the world experience mental problems, so it is estimated that around 450 million people in the world have mental health problems [1]. According to WHO, schizophrenia is a serious mental disorder that affects about 7 per thousand of the adult population, especially in the 15-35 year age group [2]. Although the incidence is low (3-10.000), the high prevalence is due to chronicity. In the general population, there are 0.2% - 0.8% of the population who have schizophrenia. Survey results in Indonesia show that around 1-2% of the population suffers from schizophrenia [3]. The recurrence of schizophrenia is determined by many factors. According to research conducted by Almahdy in 2019 at dr. Soetomo, factors that influence the recurrence of schizophrenia patients are the history of maternal physical disorders during pregnancy, the presence of triggers, the patient's and family's beliefs about the patient's disease, genetics, patient insights, the GAF (Global Assessment Functioning) scale within a year, response to treatment, type schizophrenia, support of patient family knowledge about recurrence, history of head trauma, drug side effects, history of substance use, and occupation [4]. Meanwhile, based on research conducted by Pratama in 2015, it showed that schizophrenia patients with poor family support experienced a

recurrence of 81.8%, while schizophrenia patients with good family support did not experience a recurrence of 88.9 [5]. Based on the descriptions and problems above, most of the research on recurrence in schizophrenia patients is caused by family factors, therefore research will be carried out that has never been studied before by linking family cohesion and recurrence in schizophrenia patients at the Psychiatry Clinic, Dr. Soetomo Hospital Surabaya.

The hypothesis of this study is to find a relationship between family cohesion and recurrence in schizophrenia patients at the Psychiatry Clinic, Dr. Soetomo Hospital. By assess the level of family cohesion, and analyzing the relationship between family cohesion and recurrence in schizophrenia patients at the Psychiatry Clinic, Dr. Soetomo Hospital. This study is expected to increase knowledge in the field of Mental Health Science and it can be used as basic data for further research on the relationship between family cohesion and recurrence in schizophrenia patients.

## Methods

This study is an observational analytic study with a retrospective cross-sectional approach. Participants were all patients with schizophrenia who come to Psychiatry Clinic, Dr. Soetomo Surabaya during March to September 2020 and willing to participate in this study. All participants were aged between 16 and 40 at the assessment who have been suffer from schizophrenia at least 1 year with a minimum Global Assessment Functioning (GAF) score of 60 and were cooperative when interviewed and came with one of their relatives when the study started and were

willing to participate in this study. The study exclusion criteria were the research subjects that had no biological family and had comorbid serious illnesses. The instruments used in this study were the patient's medical record, the GAF scale, and the Brief Family Relationship Scale (BFRS) which were used to measure the value of family cohesion in schizophrenia patients. Medical records were used to show the duration of schizophrenia in the patients and the frequency of recurrences experienced by the patients. (GAF) is an assessment instrument used to assess disease severity in Psychiatry. And its ratings are based on the collected information. Meanwhile, the Brief Family Relationship Scale (BFRS) consists of the Cohesion, Expressive, and

Conflict subscales, which measures a person's perception of the quality of his family relationship function. The level of family cohesion experienced can be assessed by BFRS on a scale of 0-8 and will be divided into three categories. Disengaged family cohesion is rated on a scale of 0-2 points, balanced family cohesion is rated on a scale of 3-6 points, enmeshed family cohesion is rated on a scale of 7-8 points.

**Results**

The data collection process was carried out on 12 June to 10 August 2020 at the Psychiatry Clinic, Dr. Soetomo Hospital Surabaya. The study obtained 40 samples that met the inclusion criteria.

**Table 1.** Distribution of study Schizophrenia Patients at the Psychiatry Clinic, dr. Soetomo Hospital

No.	Characteristics	Number of Study Subjects	Percentage (%)
<b>Gender Distributions</b>			
1	Male	26	65
2	Female	14	35
Total		40	100,0
<b>Range of Age (years)</b>			
1	16 – 19	1	2,5
2	20 - 40	39	97,5
Total		40	100
<b>Family Cohesion</b>			
1	Disengaged	1	2,5
2	Balanced	14	35
3	Enmeshed	25	62,5
Total		40	100
<b>Recurrences of Schizophrenia (times per year)</b>			
1	≤ 2	5	12,5
2	>2	35	87,5
Total		40	100,0

The distribution of these age ranges is divided according to WHO classification. 'Adolescents' as individuals in the 11-19 years age group, while the 20-60 year age range is classified as an 'adult'.

The largest age range was 20-40 years as many as 39 study subjects (97.5%), while the least age was 16-19 years were 1 study subject [6].

**Table 2.** Cross tabulation of family cohesion with recurrence frequency of schizophrenia at the Psychiatry Clinic, Dr. Soetomo Hospital Surabaya

Recurrence frequency of schizophrenia	Family Cohesion		
	Disengaged	Balanced	Enmeshed
≤ 2	0	0	5
>2	1	14	20

The following are the results of the Spearman correlation analysis for the relationship between family cohesion and recurrence in schizophrenia patients:

**Table 3.** Research Analysis of study Schizophrenia Patients at the Psychiatry Clinic, dr. Soetomo Hospital

Variable	Correlation Coefficient	Significance(%)	Annotation
Family cohesion and recurrence in schizophrenia patients	-0,291	0,69	insignificant

**Table 3.** This data were analyzed using descriptive statistics in SPSS 20th version. This table shows that the correlation coefficient value is -0.291 with a significance value of 0.69 ( $p > 0.05$ ). Thus it can be concluded that there is no significant correlation between family cohesion and recurrence in schizophrenia patients at the Psychiatry Clinic, Dr. Soetomo Hospital Surabaya.

**Discussion**

Based on table 1, recurrence was more frequent in males. This study was in line with a study conducted by Nofriyanto that recurrence was more frequent in males than females [7]. This study is in accordance with Sadock’s theory which states that male sex tends to experience recurrences more frequently in schizophrenia [8]. This is because the onset of males is faster than in females [9].

From table 2, schizophrenia recurrence is more common in patients in the age range 20-40. This is similar to the research conducted by Erlina that most schizophrenia patients are aged 25-35 years [10]. This study was also in line with the study conducted by Yudistira that more than half of the study subjects of early adulthood have schizophrenia recurrence. In early adulthood, people are often egocentric and de-

velop an inappropriate understanding of others, which can lead to depression and stress [11]. That is why in early adulthood, schizophrenia patients often experience recurrence [12].

On table 3, the highest number of people were research subjects with enmeshed family cohesion. This study was not in line with a study conducted by Lei where the results showed that research subjects with enmeshed family cohesion were 24.5% of the whole research subjects [13]. This study, which was not in line with Lei’s study, is due to many factors that affect family cohesion, including gender, age differences, sibling group size, family structure, and the presence of both parents [14]. The highest number of schizophrenia patients with enmeshed family cohesion is probably due to the low autonomy of schizophrenia patients themselves [15].

Based on the table, the largest proportion of the frequency of recurrence was more than 2 times, as many as 35 study subjects (87.5%). The results of this study were obtained from research conducted by Suwondo [16] that found 44 study subjects (58.7%) who experienced a frequent recurrence of schizophrenia. This result is in accordance with the theory stated by Stuart and Laraia [17] that the average person with schizophrenia experiences recurrence more often than other people with mental disorders.

Based on the Spearman correlation analysis, there is no significant correlation between family cohesion and recurrence in schizophrenia patients at the Psychiatry Clinic, Dr. Soetomo Hospital Surabaya with a significance value of 0.69 ( $p > 0.05$ ), which means that there is no significant relationship between family cohesion and recurrence in schizophrenia patients. In this study, researchers did not find other studies that linked family cohesion with relapse in schizophrenia. Researchers found a study that is close to the relationship between family modeling roles and relapse in schizophrenia patients, which family cohesion can also illustrate the possible role of modeling families of schizophrenia patients and vice versa. The results of the insignificant relationship are also in line with a study conducted by Soep that there is no significant relationship between the role of modeling on relapse in schizophrenia patients, with a p-value of 0.245 which means a p-value of more than 0.05 [18]. There was also a study that approaches the relationship of family support with recurrence in schizophrenia patients, where family cohesion can also illustrate the pos-

sibility of family support for schizophrenia patients and vice versa. The results of the insignificant relationship are not in line with research conducted by Pratama which states that there is a significant relationship between family support and recurrence of schizophrenia patients, with a significance value of 0.000 which means the p-value is less than 0.05 [5].

In theory, there are five parties that cause schizophrenia patients to relapse, including the patient himself, a doctor or health worker, the person in charge of the patient, his family, and the environment [19]. The factors that cause the recurrence of schizophrenia include; depression mood, medication adherence, and medication side effects [20]. Relapse of schizophrenia patients can be significantly reduced from 65% to 25% if they receive maximum care from their family while they are at home. Conversely, if they do not get proper treatment, they will tend to relapse easily [21].

The factors that affect the cohesiveness of a family include deep recognition, the intensity of togetherness, love, social support, emotional regulation, and gender [22]. Other factors that affect cohesiveness in the family include gender, age differences, sibling group size, family structure, and the presence of both parents [23].

The insignificant value in this study is probably due to the many other factors that influence schizophrenia recurrence and family cohesion. The possible factor causing research subjects with enmeshed family cohesion with the greatest number is the COVID-19 pandemic where research subjects spend more time at home with their respective families. Another possibility is that family cohesion does not reflect family

support, where a study conducted by Pratama is not in line with this study that there is a significant relationship between family support and recurrence of schizophrenia patients, with a significance value of 0.000 which means a p-value is less than 0.05 [5].

### Conclusion

The results of this research found that there was no significant relationship between family cohesion and recurrence in schizophrenia patients at the Psychiatry Clinic, Dr. Soetomo Hospital Surabaya, and the finding of most schizophrenia patients with enmeshed family cohesion at the Psychiatry Clinic, Dr. Soetomo Hospital Surabaya.

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### References

- [1] S. Febrianti and R. Wijayanti, "Hubungan Tipe Pola Asuh Keluarga Dengan Kejadian Skizofrenia Di Ruang Sakura RSUD Banyumas," Soedirman J. Nurs., 2009. DOI: [10.30737/nsj.v6i1.2638](https://doi.org/10.30737/nsj.v6i1.2638)
- [2] WHO, "WHO | Schizophrenia," Schizophrenia. 2015. <https://www.who.int/news-room/fact-sheets/detail/schizophrenia>
- [3] Siti and Dyah, "Kajian Epidemiologis Skizofrenia" Jurnal Kedokteran Universitas Lampung, 2016
- [4] S. Almahdy. and M. Maramis, "Fak-

tor – Faktor Yang Memengaruhi Kekambuhan Pasien Skizofrenia". Repository.unair.ac.id. 2019. Available at: <<http://repository.unair.ac.id/81036/>> [Accessed 8 October 2020].

[5] Pratama, Syahrial, and Isak, "Hubungan Keluarga Pasien Terhadap Kekambuhan Skizofrenia di Badan Layanan Umum Daerah (Blud) Rumah Sakit Jiwa Aceh," J. Kedokt. Syiah Kuala, 2015.

[6] WHO, "Ageing And Health" [Internet]. Available at: <<https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>> ,2018, [cited 23 August 2020].

[7] A. Nofriyanto, "Hubungan Karakteristik Psikologis Jenis Kelamin Dengan Frekuensi Kekambuhan Pada Pasien Skizofrenia Di Poliklinik Rumah Sakit Jiwa Grhasia Yogyakarta," Univ. Aisyiyah Yogyakarta, 2019. DOI: [10.23917/bik.v15i1.16947](https://doi.org/10.23917/bik.v15i1.16947)

[8] P. Rowe, "Kaplan & Sadock's Concise Textbook of Clinical Psychiatry," J. Ment. Heal., doi: [10.1080/09638230902946833](https://doi.org/10.1080/09638230902946833), 2009.

[9] N. Gogtay, N. Vyas, R. Testa, S. Wood, and C. Pantelis, "Age of Onset of Schizophrenia: Perspectives From Structural Neuroimaging Studies". Schizophrenia Bulletin, 37(3), pp.504-513, 2011. DOI: [10.1093/schbul/sbr030](https://doi.org/10.1093/schbul/sbr030)

[10] Erlina, Soewadi, and D. Pramono, "Determinan Terhadap Timbulnya skizofrenia pada Pasien Rawat Jalan di Rumah Sakit Jiwa Prof. HB Saanin Padang Sumatera Barat," Ber. Kedokt. Masy., 2010. <https://doi.org/10.22146/bkm.3471>

[11] Y. Afconneri, K. Lim, and I. Erwina, "Hubungan Faktor Keluarga Dengan Kekambuhan Pada Klien Skizofrenia di Poliklinik Rumah Sakit Jiwa Prof. Dr. Hb.

Sa'anin Padang,” J. Kesehat. Terpadu (Integrated Heal. Journal), doi: [10.32695/jkt.v10i1.29](https://doi.org/10.32695/jkt.v10i1.29), 2019.

[12] C. Harrop and P. Trower. “Why does schizophrenia develop at late adolescence?”. *Clinical Psychology Review*;21(2):241-265, 2001. DOI: [10.1016/S0272-7358\(99\)00047-1](https://doi.org/10.1016/S0272-7358(99)00047-1)

[13] X. Lei, “Study on Relationship Between Family Cohesion and Adaptability, and Quality of Life of Caregivers of Children with ASD,” *Soc. Welf. Interdiscip. APPROACH*, doi: [10.21277/sw.v1i8.340](https://doi.org/10.21277/sw.v1i8.340), 2018.

[14] N. Katwal, N. Katwal, T. J. Kamalanabhan, and T. J. Kamalanabhan, “Factors influencing sibling cohesiveness in the Indian families,” *Pakistan J. Psychol.* Vol. 17, Issue 1-2, 2002. <https://go.gale.com/ps/i.do?id=GALE%7CA259960744&sid=-googleScholar&v=2.1&it=r&link-access=fulltext&issn=10160604&p=HR-CA&sw=w&userGroupName=anon%7E203d906a&aty=open-web-entry>

[15] D. H. Olson, D. H. Sprenkle, And C. S. Russell, “Circumplex Model of Marital and Family Systems: I. Cohesion and Adaptability Dimensions, Family Types, and Clinical Applications,” *Fam. Process*, doi: [10.1111/j.1545-5300.1979.00003.x](https://doi.org/10.1111/j.1545-5300.1979.00003.x), 1979.

[16] Suwondo, Sujarwo, and Supriyadi, “Hubungan antara Frekuensi Pasien Skizofrenia dengan Tingkat Kecemasan pada Keluarga.” *Ejournal Stikestelogorejo*,

2013

[17] Stuart and Laraia, “Principle & Practice of Psychiatric Nursing” St. Louis: Mosby Year Book, 2005

[18] Soep, “Hubungan Peranan Keluarga terhadap Kekambuhan pada Pasien Skizofrenia di Poliklinik Sebuah Rumah Sakit di Sumatera Utara”. *Jurnal Ilmiah PANMED*, 9(1), 2014. DOI: [10.36911/panmed.v9i1.367](https://doi.org/10.36911/panmed.v9i1.367)

[19] B. A. Keliat, Akemat, N. Helena, and N. Nurhaeni, “Proses Keperawatan Kesehatan Jiwa”. 2011.

[20] N. J. B. Kazadi, M. Y. H. Moosa, and F. Y. Jeenah, “Factors associated with relapse in schizophrenia,” *South African J. Psychiatry*, doi: [10.4102/sajpsychiatry.v14i2.158](https://doi.org/10.4102/sajpsychiatry.v14i2.158), 2008.

[21] I. N. A. Fatmawati, “Faktor-faktor penyebab skizofrenia (studi kasus di rumah sakit jiwa daerah surakarta),” *Fak. Psikol. Univ. Muhammadiyah Surakarta*, 2016. <http://eprints.ums.ac.id/id/eprint/46748>

[22] D. Anindita and K. Bashori, “KOHESIVITAS SUAMI ISTRI DI USIA MADYA”, *Humanit. Indones. Psychol. J.*, doi: [10.26555/humanitas.v9i1.347](https://doi.org/10.26555/humanitas.v9i1.347), 2012.

[23] F. Kurnia, J. Tyaswati, and C. Abrori. “Faktor-Faktor Yang Mempengaruhi Kekambuhan Pada Pasienskiizofrenia Di RSD Dr. Soebandi Jember”. [online]. *jurnal.unej.ac.id*, 2015. Available at: <<https://jurnal.unej.ac.id/index.php/JPK/article/view/2998/2412>> [Accessed 5 October 2020].