Psychosocial, Internal and External Factors of Treatment Compliance of Schizophrenic Patients: A Literature Review

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Systematic Review

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Psychosocial, Internal and External Factors of Treatment Compliance of Schizophrenic Patients: A Literature Review

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Abstract

Compliance to treatment is one of the important and essential components of healing and schizophrenia patient's quality of life. Treatment compliance can be improved by identifying internal and external factors from the patient. This review aims to identify Psychosocial, Internal and External Factors of Treatment Compliance of Schizophrenic Patients. The systematic research for articles begins by identifying research articles in four databases, from Scopus, Science Direct, Sage and Proquest in 2019 – 2021 using predetermined keywords. Articles were selected using PRISMA methode, and based on the inclusion and exclusion criteria that set out. Twenty-five articles analyzed in this lyteratur review were all quantitative studies. The results of the research review show that psychosocial, internal factors and external factors are components of supporting compliance to treatment for schizophrenic patients

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INTRODUCTION

Medication compliance is a clinical problem that is often found when treating patients with psychotic disorders. Compliance is a complex phenomenon and is very difficult to detect when people with psychotic disorders are not undergoing hospitalization (Leijala et al., 2021). Various studies stated that this non-compliance is one of the reasons a person can relapse, return to the hospital and this will have an impact on a higher treatment costs (Abdisa et al., 2020); (Chai et al., 2021) Various precipitating factors cause non-compliance to treatment, but the main factor is not yet known with certainty. Indonesia through the program that has been launched in the 2020-2024 RPJMN Policy related to the TPB/SDGs stated that it will give special attention to improving health services towards universal health coverage, especially strengthening services

for basic health (Ministry of National Development Planning, 2020). However, non-compliance in treatment is still a big problem in Indonesia, this is showed by the treatment coverage of people with schizophrenia that only 15.1% (Kemenkes RI, 2018).\

Schizophrenia is still a trend in the world and in Indonesia, because patients with schizophrenia continue to increase every year. Based on the results of the 2018 RISKESDAS, it was stated that the prevalence of schizophrenia in the 2013-2018 period was 7 per mile, with treatment coverage that did not routinely take medication of 51.1% (Kemenkes RI, 2018). Based on several research results, 19.1% did not adhere to treatment (Şahin Altun et al., 2021).

It has been widely recognized that various factors have contributed or become important causes of medication compliance in people with schizophrenia. For this review, various studies state that the treatment compliance factor is influenced by multifactors ranging from patient factors, health status factors, factors related to treatment, disease management factors (Hsieh et al., 2019). External factors such as family support are thought to be one of the factors that influence compliance (Alston et al., 2019). A number of studies have been carried out to identify factors that cause medication compliance in people with schizophrenia, but the number is still very limited. This systematic review aims to identify and synthesize what factors affect medication compliance of people with schizophrenia.

METHOD

Search criteria

We conducted a systematic search on English articles published from 2019 to 2021. An electronic database search was conducted in September 2021 on four databases, namely Scopus, Science Direct, Sage and Proquest. In this systematic review, no search was carried out on the gray literature.

The search was conducted using three keywords, namely “(compliance OR Compliance) AND (schizophren* OR psychosis OR psychoses OR psychotic disorder OR schizophrenic disorder) AND (medication)”. The author uses each of these keywords in the search then the author combines the three keywords with the conjunction "and", this stage is carried out on each database

Inclusion and exclusion criteria

Articles were assessed clearly and strictly based on inclusion criteria, namely articles that discussed those that affect medication compliance of people with schizophrenia. Articles obtained in the search process are then selected based on inclusion and exclusion criteria that shown in table 1:

Tabel 1 *Inclusion and exclusion criteria with PICOS*

Criteria	Inclusion	Exclusion
Population	schizophrenia	Not shizophrenia
Intervention	There are no intervention	There are no criteria exclusion
Comparisons	There are no comparison	There are no comparison
Outcome	Factors of therapy compliance in patients with schizophrenia	There are no criteria exclusion
Study Type	Factors of therapy compliance in patients with schizophrenia	Not relevant to therapy compliance factors in people with schizophrenia
Publication Type	Peer reviewed original studies	mixed method, a quasi experimental design, clinical trial or randomized controlled trial, Systematic or literature reviews, qualitative research
Publication Years	2019 – 2021	Peer reviewed original studies
Language	English	Non peer-reviewed studies
		Pre 2019
		Non English Language

Figure 1 PRISMA Flow Chart

RESULT

Compliance can be identified as the patient's behavior towards the recommendations that have been given and has also been agreed between the patient and health workers, one of which is compliance in taking medication. In this systematic review, treatment compliance factors are classified into 2, namely:

1. Internal factors that affect medication compliance in schizophrenic patients consist of (1) the patient's own belief that medication is not needed for healing (2) relatively older age (3) self-efficacy (4) general health status (5) gender men (6) poorer treatment attitude (7) poor decision-making ability (8) poor insight (10) side effects

2. External factors

External factors that affect medication compliance consist of (1) lower socioeconomic status (2) living alone (3) length of illness (4) drug abuse (5) education level (6) severity of illness for example being in the acute phase (7) participating in mental health services (8) health facilities (9) marital status (10) receiving monotherapy

3. Psychosocial factors

psychosocial factors that affect medication compliance consist of (1) social support, (2) living with family

DISCUSSION

Efforts to determine the compliance of schizophrenic patients in undergoing treatment focus on internal conditions and existing external conditions. Thus, it is necessary to identify the assessment of factors related to medication compliance of schizophrenic patients. The main objective of this systematic review was to identify factors influencing treatment. The main result of this systematic review is that factors affecting compliance are classified into internal and external risk factors. Internal factors that influence medication compliance in schizophrenic patients consist of (1) the patient's own belief that medication is not needed for healing (2) relatively older age (3) self-efficacy (4) general health status (5) male gender. male (6) poorer treatment attitude (7) poor decision-making ability (8) poor insight (10) side effects external factors that affect medication compliance consist of ((1) lower socioeconomic status (2) living alone (3) length of illness (4) drug abuse (5) education level (6) severity of illness for example being in the acute phase (7) participating in mental health services (8) health facilities (9) marital status (10) receiving monotherapy and psychosocial factors that affect medication compliance consist of (1) social support, (2) living with family

Based on studies that have been conducted on patients with schizophrenia who are generally clinically stable, it was found that there is a correlation between insight in patients with medication compliance, the insight referred to in this case is clinical insight and insight into the knowledge possessed by the patient, (Lui et al., 2021). Knowledge can be a very effective motivator or reinforcer for someone, especially in this case, people with schizophrenia who do have a relatively longer time of onset of illness to learn to gradually change their behavior for the better, especially regarding compliance to the treatment program that is followed. The attitude factor is also one of the patient's internal factors that affect compliance. Based on several research results, it was found that a poor or uncooperative attitude towards treatment is one of the factors causing non-compliance to treatment undertaken by people with schizophrenia,

(Sajatovic et al., 2021) . Other influencing factors are age, fixed income, and disease severity and being in the acute phase of the disease has a significant effect on age medication compliance. The elderly have the motivation to live healthy and always pay attention to their health, (Wang et al., 2020). The tendency to increase or increase in age is essential to improve medication compliance, (Stockbridge et al., 2021); (Aylaz & Kılınç, 2017).

The side effects that arise are often the reason for non-compliance to treatment undertaken by people with schizophrenia, extrapyramidal syndrome effects, hormonal effects, psychological effects on mood changes or other categories of reactions (Bahta et al., 2021). Side effects of treatment will also increase along with the multiple treatments that have been undertaken, patients who receive monotherapy or one type of drug are more often completely adhered to than those who receive different drug combinations, (Both et al., 2021). This is because the perceived side effects have an impact on the activities or daily life of people with schizophrenia, (Yu et al., 2021b). In some patients who receive different types of antipsychotics, they will get different responses or results so that this will also be one of the determinants of treatment compliance, (Lee et al., 2019).

In a broader perspective, the attitude taken by the individual is the main and essential thing in determining the feeling or compliance to the treatment being undertaken, (Lee et al., 2019). Individual attitudes in complying with all therapeutic regimens undertaken by various factors including their spiritual beliefs, based on the results of this study it is illustrated that there is a significant relationship between spiritual well-being and medication compliance in individuals diagnosed with mental disorders, (Gültekin & Kavak Budak, 2021) .

Family, social or external environment related to medication compliance in people with schizophrenia. In some studies it is described that patients with schizophrenia do not adhere to medication. length of hospitalization, health facilities, knowledge, medical social support, and motivation to use drugs, all of these factors are external factors outside the patient so that in principle there is a need to optimize this resource, (Hsieh et al., 2019).

STUDY LIMITATION

There are several research limitations that need to be considered in this systematic review. First, there are thirteen articles (19.7%) which have almost the same research results but different research locations so that from the thirteen articles the identification results obtained are approximately the same. In addition, most of the studies (90.1%) were studies with a cross-sectional design so that it was not possible to determine a causal relationship. Apart from the limitations in this study, the articles discussed in the study were quite numerous (total articles =

25) and varied so that the factors identified in this systematic review can be considered as internal factors as well as external factors that affect medication compliance.

CONCLUSION

The influencing factors consist of internal and external risk factors. To make effort to comply with treatment for schizophrenic patients, addition to paying attention to the factors that have been determined, it is necessary to also pay attention to the internal and external factors that have been described in this systematic review. Identification of these factors can improve compliance so that in the end, improve quality of life and reduce recurrence rates.

DECLARATION OF INTEREST STATEMENT

There is no conflict of interest in writing this lyteratur review

REFERENCE

- Abdisa, E., Fekadu, G., Girma, S., Shibiru, T., Tilahun, T., Mohamed, H., Wakgari, A., Takele, A., Abebe, M., & Tsegaye, R. (2020). Self-stigma and medication compliance among patients with mental illness treated at Jimma University Medical Center, Southwest Ethiopia. *International Journal of Mental Health Systems*, 14(1), 1–13. <https://doi.org/10.1186/s13033-020-00391-6>
- Alston, M., Bennett, C. F., & Rochani, H. (2019). Treatment Compliance in Youth with First-Episode Psychosis: Impact of Family Support and Telehealth Delivery. *Issues in Mental Health Nursing*, 40(11), 951–956. <https://doi.org/10.1080/01612840.2019.1630532>
- Aylaz, R., & Kılınç, G. (2017). The Relationship Between Treatment Compliance and Social Support in Psychiatric Patients in the East of Turkey. *Archives of Psychiatric Nursing*, 31(2), 157–163. <https://doi.org/10.1016/j.apnu.2016.09.008>
- Bahta, M., Ogbaghebriel, A., Russom, M., Tesfamariam, E. H., & Berhe, T. (2021). Impact of adverse reactions to first-generation antipsychotics on treatment compliance in outpatients with schizophrenia: a cross-sectional study. *Annals of General Psychiatry*, 20(1), 1–7. <https://doi.org/10.1186/s12991-021-00348-0>
- Both, C., Mechler, K., Niemeyer, L., Jennen-Steinmetz, C., Hohmann, S., Schumm, L., Dittmann, R. W., & Häge, A. (2021). Medication compliance in adolescents with psychiatric disorders: The relevance of demographic and socioeconomic factors plus parents' assessments of their offspring's attitudes towards treatment. *Zeitschrift Fur Kinder-Und Jugendpsychiatrie Und Psychotherapie*, 49(4), 295–306. <https://doi.org/10.1024/1422-4917/a000813>
- Chai, X., Liu, Y., Mao, Z., & Li, S. (2021). Barriers to medication compliance for rural patients with mental disorders in eastern China: a qualitative study. *BMC Psychiatry*, 21(1), 1–8. <https://doi.org/10.1186/s12888-021-03144-y>
- Dou, L., Hu, L., Zhang, N., Cutler, H., Wang, Y., & Li, S. (2020). Factors associated with medication compliance among patients with severe mental disorders in China: A propensity score matching study. *Patient Preference and Compliance*, 14, 1329–1339. <https://doi.org/10.2147/PPA.S255934>
- Endriyani, L., Chien, C. H., Huang, X. Y., & Chieh-Yu, L. (2019). The influence of compliance to antipsychotics medication on the quality of life among patients with schizophrenia in Indonesia. *Perspectives in Psychiatric Care*, 55(2), 147–152. <https://doi.org/10.1111/ppc.12276>
- Gültekin, A., & Kavak Budak, F. (2021). Does Spiritual Well-Being Affect Medication Compliance in Individuals Diagnosed with Mental Illness in Turkey? *Journal of Religion and Health*, 0123456789. <https://doi.org/10.1007/s10943-021-01322-6>
- Hsieh, W. L., Lee, S. K., Chien, W. T., Liu, W. I., Lai, C. Y., & Liu, C. Y. (2019). Mediating effect of the motivation for medication use on disease management and medication compliance among community-dwelling patients with schizophrenia. *Patient Preference and Compliance*, 13, 1877–1887. <https://doi.org/10.2147/PPA.S218553>
- Kemenkes RI. (2018). Hasil Riset Kesehatan Dasar Tahun 2018. *Kementrian Kesehatan RI*, 53(9), 1689–1699.

- Kementerian PPN. (2020). Pedoman Teknis Penyusunan Rencana Aksi - Edisi II Tujuan Pembangunan Berkelanjutan/ Sustainable Development Goals (TPB/SDGs). *Kementerian PPN*.
- Lee, Y., Lee, M. S., Jeong, H. G., Youn, H. C., & Kim, S. hyun. (2019). Medication compliance using electronic monitoring in severe psychiatric illness: 4 and 24 weeks after discharge. *Clinical Psychopharmacology and Neuroscience*, 17(2), 288–296. <https://doi.org/10.9758/cpn.2019.17.2.288>
- Leijala, J., Kampman, O., Suvisaari, J., & Eskelinen, S. (2021). Daily functioning and symptom factors contributing to attitudes toward antipsychotic treatment and treatment compliance in outpatients with schizophrenia spectrum disorders. *BMC Psychiatry*, 21(1), 1–11. <https://doi.org/10.1186/s12888-021-03037-0>
- Lui, S. S. Y., Lam, J. P. Y., Lam, J. W. S., Chui, W. W. H., Mui, J. H. C., Siu, B. W. M., Cheng, K. M., Cheung, E. F. C., & Chan, R. C. K. (2021). Cognitive insight is correlated with cognitive impairments and contributes to medication compliance in schizophrenia patients. *Asian Journal of Psychiatry*, 60(March), 102644. <https://doi.org/10.1016/j.ajp.2021.102644>
- Şahin Altun, Ö., Asi Karakas, S., Öztürk, Z., & Polat, H. (2021). An analysis of the relationship between social support levels and treatment compliance of individuals diagnosed with schizophrenia. *Perspectives in Psychiatric Care*, March, 1–6. <https://doi.org/10.1111/ppc.12813>
- Sahin, S., Elboga, G., & Altindag, A. (2020). The effects of the frequency of participation to the community mental health center on insight, treatment compliance and functionality. *Klinik Psikiyatri Dergisi*, 23(1), 64–71. <https://doi.org/10.5505/kpd.2020.49369>
- Sajatovic, M., Mbwapbo, J., Lema, I., Blixen, C., Aebi, M. E., Wilson, B., Njiro, G., Burant, C. J., Cassidy, K. A., Levin, J. B., & Kaaya, S. (2021). Correlates of poor medication compliance in chronic psychotic disorders. *BJPsych Open*, 7(1), 1–7. <https://doi.org/10.1192/bjo.2020.141>
- Stockbridge, E. L., Webb, N. J., Dhakal, E., Garg, M., Loethen, A. D., Miller, T. L., & Nandy, K. (2021). Antipsychotic medication compliance and preventive diabetes screening in Medicaid enrollees with serious mental illness: an analysis of real-world administrative data. *BMC Health Services Research*, 21(1), 1–16. <https://doi.org/10.1186/s12913-020-06045-0>
- Tan, C., Abidin, E., Liang, W., Poon, L. Y., Poon, N. Y., & Verma, S. (2019). Medication compliance in first-episode psychosis patients in Singapore. *Early Intervention in Psychiatry*, 13(4), 780–788. <https://doi.org/10.1111/eip.12559>
- Vega, D., Acosta, F. J., & Saavedra, P. (2021). Noncompliance after hospital discharge in patients with schizophrenia or schizoaffective disorder: A six-month naturalistic follow-up study. *Comprehensive Psychiatry*, 108, 152240. <https://doi.org/10.1016/j.comppsy.2021.152240>
- Wang, D., Ross, B., Xi, C., Pan, Y., Zhou, L., Yang, X., Wu, G., Ouyang, X., Si, T., Liu, Z., & Hu, X. (2020). Medication compliance and its correlates among patients affected by schizophrenia with an episodic course: A large-scale multi-center cross-sectional study in China. *Asian Journal of Psychiatry*, 53(May), 102198. <https://doi.org/10.1016/j.ajp.2020.102198>

- Yu, W., Tong, J., Sun, X., Chen, F., Zhang, J., Pei, Y., Zhang, T., Zhang, J., & Zhu, B. (2021a). Analysis of medication compliance and its influencing factors in patients with schizophrenia in the chinese institutional environment. *International Journal of Environmental Research and Public Health*, 18(9), 1–10. <https://doi.org/10.3390/ijerph18094746>
- Yu, W., Tong, J., Sun, X., Chen, F., Zhang, J., Pei, Y., Zhang, T., Zhang, J., & Zhu, B. (2021b). Analysis of medication compliance and its influencing factors in patients with schizophrenia in the chinese institutional environment. *International Journal of Environmental Research and Public Health*, 18(9), 1–11. <https://doi.org/10.3390/ijerph18094746>