



## Factors Affecting Medication Compliance of Patients with Schizophrenia at the Psychiatric Polyclinic of Dr. Mm Dunda Limboto Hospital

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### ABSTRACT

Schizophrenia is a serious mental disorder that affects the way a person thinks, feels, and acts. This disorder is characterized by psychotic symptoms such as hallucinations, delusions, thinking disorders, and social withdrawal. This study uses a cross sectional design. Cross-sectional is a design that aims to find an event in a phenomenon, situation, problem, behavior, or issue by taking a cross-section (representative example representing the whole) of a population. There was no long-term relationship between treatment and medication adherence for schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital with the results of the chi square statistical test showing a p-value = 0.061 ( $>0.05$ ). There was a relationship between family knowledge and medication adherence for schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital with the results of the chi square statistical test showing a p-value = 0.011 ( $<0.05$ ). There was a relationship between family support and medication adherence to schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital with the results of the chi square statistical test showing a p-value = 0.002 ( $<0.05$ ).

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## INTRODUCTION

Based on data World health organization (WHO, 2022), there are more than 20 million people worldwide suffering from schizophrenia with a prevalence of 0.5%-1% of the global population. Meanwhile, in Indonesia, based on the 2023 Indonesian Health Survey, it is estimated that there are 315,621 households with psychosis/schizophrenic mental disorders with a prevalence of 4.0% per mile, which means that out of 1000 households there are 4 household members with schizophrenic mental disorders. This figure has shown a decrease compared to the 2018 Riskesdas data, with a prevalence of 7% per mile, (Ministry of Health, 2023).

Although the number of people with schizophrenia has decreased over the past 5 years, the problem is the compliance of people with schizophrenia to comply with medication. Globally, medication non-adherence rates in schizophrenic patients range from 30% to 60%, with an average of about 45%. Developing countries tend to have higher rates of non-compliance than developed countries, mainly due to economic constraints, lack of education, and social stigma. (Gupta et al., 2023).

Psychotic mental disorder or schizophrenia is a severe mental disorder that is generally characterized by fundamental and characteristic deviations from thoughts and perceptions, accompanied by unnatural (inappropriate) effects, (Ministry of Health, 2023). One of the management to reduce and control the signs and symptoms that appear is with pharmacotherapy or antipsychotic drugs, (Sutejo, 2018). Antipsychotics affect the work of dopamine and serotonin in the brain so that they can prevent and reduce the appearance of symptoms of schizophrenia, (Ministry of Health of the Republic of Indonesia, 2024). However, the benefits of these antipsychotic drugs will not be maximized if the patient does not comply with taking the medication.

Medication adherence is the main thing that affects the success of treatment and recovery of schizophrenia patients, (Isnani & Putra, 2020). Compliance is an overview of the extent to which a patient's behavior is in accordance with recommendations agreed with health care providers, one of which is compliance in taking medication. Medication adherence is a situation when patients take the right and correct medication, the right time, the right dose, the right schedule, and the right conditions, for example, taken after meals, (Aremu et al., 2022), (Vasanthan et al., 2025).

The results of the research conducted Randy Refnandes & Zakiah Almaya, (2022), factors that affect medication adherence in schizophrenia patients consist of patient factors, treatment factors, and environmental factors. Patient factors consist of age, gender, education, income, and the patient's insight into medication adherence. Environmental factors consist of family support, social or community support, the patient's residential relationship with health services and the nurse's relationship with the client. The same thing with research conducted by Putra et al, (2024), factors related to medication adherence to schizophrenia patients, namely socio-economic, family support.

Many factors affect the medication adherence of schizophrenia patients. This is in accordance with research conducted by Mochsal et al., (2024), which concludes that the lower the level of family knowledge support, family emotional support, physical and material support, the higher the likelihood of schizophrenia recurrence. While research Susanti et al., (2022), concluding that to improve medication adherence for schizophrenia patients, various supports are needed both within themselves (patients) and outside of patient factors so that they can help in the treatment and recovery process of patients. Other studies have shown that the factors that most affect medication adherence in schizophrenia patients are family knowledge and family support. (Putra et al., 2024).

Based on the results of a preliminary study conducted at the Psychiatric Polyclinic of Dr. MM Dunda Limboto Hospital by conducting interviews with health workers on duty at the Psychiatric Polyclinic, it is stated that in 2024 the incidence of schizophrenia patients will increase. Previously, in 2023 there were 28 people and in 2024 it will increase to 119 people with schizophrenia. This has resulted in an increase of 23.5%. Health workers also stated that many patients did not redeem the medication every month, after being asked the reason why the family and patients said they had forgotten, did not have the opportunity for health services, the drugs taken caused side effects such as dry mouth, a lot of saliva, dizziness, weakness, and often drowsiness. Some of them also said they lacked family support and even always looked down on patients.

Based on the observations of the researcher during the preliminary study, it appears that several patients were delivered by their families for consultation and medication at Dr. MM Dunda Limboto Hospital. When interviewed, some families said they would always accompany patients to take medication and would always provide full support to schizophrenic patients. The family said that even though the distance between the residence and the hospital is a bit far and requires money for transportation, the family will still penetrate the medicine and accompany the patient to always take medication regularly. But some families also expressed saturation to take medication every month because schizophrenia sufferers have been on treatment for a long time and have not recovered, this family also said they wanted to give up even though schizophrenia sufferers would relapse.

## RESEARCH METHODOLOGY

This study uses a cross sectional design. Cross-sectional is a design that aims to find an event in a phenomenon, situation, problem, behavior, or issue by taking a cross-section (representative example representing the whole) of a population. This research was carried out at the Psychiatric Polyclinic of Dr. MM Dunda Limboto Hospital. The researcher will use this technique to obtain a suitable and representative sample for his research purposes (Pasaribu et al., 2022). The number of samples is 30 respondents, as for the sample criteria set in this study.

### Data Analysis Techniques

Data analysis was carried out with a computer using the SPSS Computer program Version 25.0

### Univariate Analysis

Univariate analysis is the analysis of one variable in the form of frequency distribution or frequency table in which there is an arrangement of data in a table that has been classified according to a certain class or category described through percentages (Sarwono & Handayani, 2021).

### Bivariate Analysis

Bivariate analysis is one of the simplest forms of quantitative (statistical) analysis. It involves the analysis of two variables (often denoted as X, Y), for the purpose of determining the empirical relationship between the two. Bivariate analysis can be helpful in testing simple relationship hypotheses (Fauzy, 2019).

**RESULT****Respondent Characteristics**

Table 1. Characteristics of respondents with schizophrenia at the Psychiatric Polyclinic of Dr.MM Dunda Limboto Hospital.

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Yes	Respondent Characteristics		Frequency (f)	Percentage (%)
1	Gender	Man	13	43
		Woman	17	57
2	Age	17-25 years old	4	13
		26-35 years old	9	30
		36-45 Years	11	37
		46-55 Years	6	20
3	Final Education	SD	7	23
		JUNIOR	14	47
		SMA	9	30
Total			30	100

Based on table 1 above, most of the characteristics of respondents based on gender are women as many as 17 respondents (57%). The characteristics of respondents based on age were mostly 36-45 years old as many as 11 respondents (37%). The characteristics of respondents based on the last education of most junior high schools were 14 respondents (47%).

**Univariate Analysis****Length of Treatment for Schizophrenia Patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital**

Table 2. Length of Treatment for Schizophrenia Patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital

Yes	Duration of Treatment	(f)	(%)
1	< 2 years	11	37
2	≥ 2 years	19	63
Total		30	100

Source : Primary Data, 2025

Table 2 shows that most of the treatment period of schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital was  $\geq 2$  years as many as 19 respondents (63%).

**Family Knowledge of Schizophrenia Patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital**

Table 3. Family Knowledge of Schizophrenia Patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital

Yes	Family Knowledge	(f)	(%)
1	Less	21	70
2	Good	9	30
Total		30	100

Table 3 shows that most of the families of schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital have poor knowledge, namely as many as 21 respondents (70%).

### Family Support for Schizophrenia Patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital

Table 4. Family Support for Schizophrenia Patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital

Yes	Family Support	(f)	(%)
1	Low	18	60
2	Tall	12	40
	Total	30	100

Table 4. showing that most of the family support for schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital is still low as many as 18 respondents (60%)

### Medication Compliance of Patients with Schizophrenia at the Psychiatric Polyclinic of MM Dunda Limboto Hospital

Table 5. Medication Compliance of Patients with Schizophrenia at the Psychiatric Polyclinic of MM Dunda Limboto Hospital

Yes	Medication Compliance	(f)	(%)
1	Obedient	10	33
2	Non-compliant	20	67
	Total	30	100

Table 5 shows that most of the schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital do not comply with taking medication, namely as many as 20 respondents (67%).

### Bivariate Analysis

#### Correlation of Length of Treatment with Medication Compliance of Schizophrenia Patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital

Table 6. Long Relationship of Treatment with Medication Compliance of Patients with Schizophrenia at the Psychiatric Polyclinic of Dr.MM Dunda Limboto Hospital

Duration of Treatment	Medication Compliance		Total	P-Value
	Non-compliant	Obedient		
< 2 Years	5	6	11	0.061
≥ 2 Years	15	4	19	

Source: Primary Data, 2025

Table 6 shows the correlation between length of treatment and adherence to taking medication. The duration of treatment < 2 years and 5 respondents did not comply with taking medication while 6 respondents were obedient to take medication. The duration of treatment ≥ 2 years and 15 respondents did not comply with the medication while 4 respondents were compliant. The results of the chi square statistical test showed a p-value = 0.061 (>0.05) which means that there was no long-term relationship between treatment and medication adherence to schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital.

#### Correlation of Family Knowledge with Medication Compliance of Schizophrenia Patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital

Table 7. The Relationship of Family Knowledge with Medication Compliance of Patients with Schizophrenia at the Psychiatric Polyclinic of Dr.MM Dunda Limboto Hospital

Family Knowledge	Medication Compliance		Total	P-Value
	Non-compliant	Obedient		
Less	17	4	21	0.011
Good	3	6	9	

Source: Primary Data, 2025

Table 7 shows the correlation of family knowledge with medication adherence, where family knowledge is lacking and schizophrenia patients do not comply with medication as many as 17 respondents while compliant as many as 4 respondents. Family knowledge was good and did not obey to take medication as

many as 3 respondents while those who obeyed took medication were 6 respondents. The results of the chi square statistical test showed a p-value = 0.011 ( $< 0.05$ ) which means that there is a relationship between family knowledge and medication adherence to schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital.

### **Correlation of Family Support with Medication Compliance of Schizophrenia Patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital**

Table 8. The Relationship of Family Support with Medication Compliance of Patients with Schizophrenia at the Psychiatric Polyclinic of Dr.MM Dunda Limboto Hospital

Family Support	Medication Compliance		Total	P-Value
	Non-compliant	Obedient		
Low	16	2	18	0,002
Tall	4	8	12	
Total				

Source: Primary Data, 2025

Table 8 shows the correlation between family support and medication adherence, where family support is low and schizophrenia patients do not comply with medication as many as 16 respondents while those who are obedient to take medication are 2 respondents. Family support was high and did not comply with taking medication as many as 4 respondents while those who were obedient to take medication were 8 respondents. The results of the chi square statistical test showed a p-value = 0.002 ( $< 0.05$ ) which means that there is a relationship between family support and medication adherence to schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital.

## **DISCUSSION**

### **Discussion of Univariate Analysis**

#### **Length of Treatment for Schizophrenia Patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital**

Table 2 shows that most of the treatment periods for schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital were  $\geq 2$  years for 19 respondents (63%) while the duration of treatment  $< 2$  years was 11 respondents (37%). The same thing with research Alfiannoor, (2022), which stated that the frequency of the most treatment was  $\geq 2$  years as many as 56 respondents (65.9%) and most of the respondents were non-compliant with taking medication as many as 60 respondents (70.6%).

Research is the same as research Merlis & Alfiah, (2022), most of the treatment period was  $\leq 5$  years, as many as 30 respondents (61.2%). Distributed guidelines World Health Organization (WHO) the duration of therapy for schizophrenia patients for the acute phase is  $\geq 12$  months, maintenance therapy 2 years, 5 years to life, (Correll et al., 2022). Based on the Clinical Practice Guidelines (PPK), Indonesian Psychiatry consists of a stabilization phase and a treatment phase. The stabilization phase or acute phase is 2 years and the treatment phase is 5 years to lifetime for chronic patients or recurrent relapses.

Based on the results of the above research and theory, researchers assume that to stabilize the condition of schizophrenia patients requires a treatment period of 2 years and if it continues to recur, it requires lifelong treatment. For this reason, it is necessary to pay attention to the patient and family to pay attention to the treatment process.

The duration of treatment tends to experience saturation of the medication routine, experience cognitive impairment and long-term side effects of antipsychotic medications, and access and financial problems will cause non-adherence to taking medication. (Stuart, 2020).

#### **Family Knowledge of Schizophrenia Patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital**

Table 3 shows that most of the families of schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital have less knowledge, namely as many as 21 respondents (70%) Based on the results of the questionnaire, families with less knowledge stated that schizophrenia is not due to brain problems, when they find out that the medicine packaging is damaged, the family does not give medicine to the patient until they get a new one, and if they forget to give medicine, they give more medicine to the sufferer. The same thing with research Saputra et al., (2024), which describes the level of family knowledge in the prevention of relapse in schizophrenic patients results in the majority of families being sufficiently knowledgeable (47%). Also supported by research Darwis, (2020), with a sample of 63 families, including 29 families of schizophrenic patients who have less knowledge, 11 people have less knowledge.

The patient's family was knowledgeable, namely 9 respondents (30%). Based on the results of the questionnaire, most families have found out about schizophrenia, both the causes, symptoms, and the treatment process of schizophrenia sufferers. The family stated that they had accompanied the patient several times for treatment and had been given education related to schizophrenia. Psychoeducation in the family is proven to increase knowledge and family care, this is proven by research by Agustini et al., (2023) which concludes that psychoeducation consistently improves the knowledge to the family's ability to care for schizophrenic patients.

Based on the researchers' assumptions, the family is the main companion in the treatment of schizophrenic patients. Adequate knowledge allows families to recognize symptoms, support adherence to medication, especially medication, and prevent recurrence of schizophrenia. Family ignorance of the causes and prognosis of schizophrenia results in low family involvement in patient care. For this reason, psychoeducation continues to be massively promoted to increase family knowledge which will certainly also have an effect on family attitudes and behaviors in treating schizophrenic patients.

### **Family Support for Schizophrenia Patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital**

Table 4 shows that most of the family support for schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital is still low as many as 18 respondents (60%). Based on the results of the questionnaire, families with low support are on average less knowledgeable families, so families are less likely to provide emotional, informational, instinctive, and assessment support to schizophrenic patients. Meanwhile, family support in the high category was 12 respondents (40%). Based on the results of the questionnaire, the family of the high support category is directly proportional to good family knowledge, the better the family knowledge, the family support for people with high schizophrenia.

The same thing with research Rahayu et al., (2023), showing that out of 50 respondents, 27 people (54%) had adequate family support, while 23 people (46%) had poor family support. Other research by Yeni et al., (2023) reported that of the 43 respondents, 25 people were in the poor family support category and 18 of them were in the good category.

Family support is essential in supporting schizophrenia treatment programs by providing encouragement or encouragement, providing information related to the treatment process, providing economic support, and rewarding patients. (Panjaitan & Dewi, 2020).

Researchers assume that good family support will facilitate the treatment process for schizophrenia sufferers. Family support is not only in accompanying patients for treatment, but consists of emotional support, namely providing encouragement, encouragement, and good communication with people with schizophrenia. Informational support is providing information related to the purpose and benefits of taking medicine. Instrumental Support, which is in the form of economic support, continues to remind clients to take medicine. Assessment support is to provide positive reinforcement to people with schizophrenia.

### **Medication Compliance for Schizophrenia Patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital**

Table 5 shows that most of the schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital do not comply with taking medication, namely as many as 20 respondents (67%) while 10 respondents (33%) are compliant with taking medication. The results of this study are in line with several studies. A meta-analysis study Loots et al., (2021) reported a rate of non-adherence to taking antipsychotic medications in schizophrenia patients between 63-74%. Other studies by Ljungdahl, (2017), stated that the range of non-adherence to medication in patients with schizophrenia ranged from 11-72% and averaged to be in the range of 40-60%. It is also supported by research conducted in Aceh by Amna et al., (2023), the non-compliance of schizophrenic patients to carry out treatment reaches more than 50%.

Based on these results, it shows that non-compliance with medication in patients with schizophrenia is classified as high reaching more than 50%. Meanwhile, compliance is a key component in preventing recurrence, improving social functioning, and improving quality of life. This is in line with this study, the inability to take medication in patients with schizophrenia is 67%.

### **Bivariate Analysis**

#### **The Long Relationship of Treatment with Medication Compliance at the Psychiatric Polyclinic of MM Dunda Limboto Hospital**

The results of the analysis showed that there was no significant relationship between the duration of treatment and medication adherence to schizophrenia patients ( $p = 0.061 > 0.05$ ). These findings indicate that the length of time patients underwent treatment, both  $< 2$  years and  $\geq 2$  years, did not directly affect patients' adherence to taking antipsychotic drugs. In this study, it was seen that patients with a treatment period of  $\geq 2$  years tended to be more non-compliant than patients with a treatment period of  $< 2$  years.

The results of this study are in line with the findings of Susanti et al. (2022) who reported that the length of treatment was not significantly related to adherence. In line with research in Tunisia which stated that the duration of the disease or the length of treatment did not have a significant correlation with medication

adherence to schizophrenia patients (Cambridge, 2024). A similar thing was also shown in a meta-analysis by Li et al. (2023) who found that even if the duration of the intervention or therapy was calculated, the increase in patient adherence was not significant when viewed only from the length of treatment. In fact, a multicenter study in Ethiopia in 2024 showed that patients with a treatment duration of more than ten years actually had a higher risk of non-compliance (Tamene et al, 2024). In contrast, some studies report different results, for example a study in Australia that found that patients with a treatment duration of eight years or more had better adherence especially when using long-term injectable antipsychotic drugs (Pai et al, 2022). This shows that the effect of treatment length on adherence is not linear and can be influenced by various other factors, such as patient factors, medication side effects, social support, type of therapy (oral or injectable), and the quality of interaction with health workers (Tamene et al, 2022; Labidi, 2024). Thus, the meaninglessness of the relationship between the duration of treatment and adherence to this study can be explained by the presence of a more dominant mediator factor than the duration itself.

The Health Belief Model (HBM) theory explains that a person's health behavior is influenced by subjective beliefs about the disease and its treatment. There are several components that affect medication adherence including susceptibility, disease severity, treatment benefits and barriers, so the HBM theory emphasizes that patients with long-term treatment need continuous motivation and education.

The phenomenon of long-term therapy saturation. According to Niven (2002), patient adherence often decreases over the duration of treatment, especially if the patient or family feels that there is no significant change in the patient's condition. Long-term side effects of medications, such as dry mouth, drowsiness, weakness, and dizziness, can also be factors that inhibit compliance. In line with research Kinanti et al., (2025), which states that there is no correlation between the duration of treatment and medication adherence (P-value = 0.105), in the study stated that non-compliance with taking OAT was due to side effects, such as difficulty sleeping, nausea, vomiting, and loss of appetite.

Based on the results of the study, researchers found that one of the reasons for non-compliance with taking medication was because the patient felt healthy and assumed that they no longer needed to take medication. This is also in line with research conducted by Yacob et al., (2023), which states that non-adherence to taking medication is due to the fact that hypertensive people often feel healthy and okay in their physical condition.

Based on the above discussion regarding the length of treatment with medication adherence, the researcher assumes the need for adherence improvement interventions that emphasize more on education, social support, selection of appropriate therapies, and monitoring of side effects, rather than focusing only on the length of time patients undergo treatment. In addition, health workers continue to motivate patients and families so that medication adherence is maintained.

### **The Relationship between Family Knowledge and Medication Compliance at the Psychiatric Polyclinic of MM Dunda Limboto Hospital**

Family knowledge was shown to be significantly related to medication adherence of schizophrenia patients ( $p = 0.011 < 0.05$ ). These findings are in line with research conducted at the Mutiara Mental Psychiatric Hospital, which found a significant relationship between the level of family knowledge and the adherence of schizophrenic patients in taking medication, where families with good knowledge are better able to support patients to remain compliant (Simanjuntak et al., 2023). Another study at Prof. M. Ildrem Mental Hospital also corroborates these results, showing that better family knowledge correlates with higher medication adherence in outpatients (Sipayung et al., 2022). In addition, studies in rural China found that families who lived with patients and had an adequate understanding of mental disorders were able to minimize the risk of non-adherence to medication (Liu et al., 2022). Family education-based interventions, such as psychoeducation, have also been shown to be effective in improving family knowledge and awareness, which in turn can improve the clinical outcomes of schizophrenia patients (Zhang et al., 2023; Putra et al., 2023).

According to Notoatmodjo (2018), knowledge is the cognitive domain that is the basis for the formation of attitudes and behaviors. Behavior based on knowledge will be maintained rather than behavior that is not based on knowledge. With good knowledge, families are more aware of the importance of regular medication as well as the adverse effects if the patient stops or reduces medication. On the other hand, lack of knowledge causes families to not understand the urgency of treatment, making it easier for patients to be negligent or refuse to take medication. Similarly, research by Mochsal et al. (2024) which confirms that low family knowledge increases the risk of patient recurrence. Family knowledge is key in creating a positive attitude, which ultimately encourages patient adherence to the therapy regimen.

Based on the results of the research and discussions from various sources above, the researcher assumes that family knowledge not only plays a role in improving emotional support and supervision of patients, but also contributes significantly in reducing the risk of recurrence through increased adherence to medication. This shows that families who have good knowledge about schizophrenia, the benefits of drug therapy, and the consequences of non-compliance will be better able to motivate patients to take medication as recommended.

### **The Relationship between Family Support and Medication Compliance at the Psychiatric Polyclinic of MM Dunda Limboto Hospital**

The results of the Chi-Square test showed that there was a significant relationship between family support and medication adherence to schizophrenia patients ( $p = 0.002 < 0.05$ ). Patients who received high family support were more compliant, while patients with low support were mostly non-compliant. Family support is very important for people with schizophrenia, considering that patients often experience decreased motivation, self-insight, and difficulty in carrying out daily activities. Forms of family support include emotional support (affection, attention), informational support (knowledge and advice related to treatment), instrumental support (assisting with cost and transportation control), and assessment support (rewarding or praising the patient's compliance).

According to Stuart (2016), good family support can increase patients' self-esteem, reduce stigma, and foster motivation to continue undergoing therapy. This study is in line with the findings of Putra et al. (2024) and Mochsal et al. (2024) which confirm the relationship between family support and compliance of schizophrenic patients. In fact, Mochsal et al. (2024) added that low family emotional, informational, and instrumental support can increase the likelihood of a patient's recurrence.

This is also in accordance with the theory of Videbeck (2020) which states that social support, especially family, is one of the main determinants in the recovery of patients with chronic mental disorders. Another theory, Social Support Theory by House (1981), explains that social support has four forms: emotional, informational, instrumental, and judgmental. Emotional support: motivating and motivating. Informational support: providing knowledge on how to take medication. Instrumental support: providing medication and transportation to health services. Assessment support: provide positive feedback when patients are compliant. Social Support Theory emphasizes that the higher the family support in these four aspects, the higher the patient's compliance.

Thus, the researchers assume that family-based interventions are an important strategy in improving medication adherence. Families need to be actively involved in the patient's care process. The active role of the family will be decisive for the success of long-term therapy and the prevention of relapse in schizophrenic patients. Family support can be in the form of emotional support, which is to provide motivation and encouragement to patients with schizophrenia. Informational support by providing knowledge on how to take medication. Instrumental support such as providing medication and transportation to health services, and assessment support is providing positive feedback when patients obediently take medication.

### **CONCLUSION**

There was no long-term relationship between treatment and medication adherence for schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital with the results of the chi square statistical test showing a  $p\text{-value} = 0.061 (>0.05)$ . There was a relationship between family knowledge and medication adherence for schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital with the results of the chi square statistical test showing a  $p\text{-value} = 0.011 (<0.05)$ . There was a relationship between family support and medication adherence to schizophrenia patients at the Psychiatric Polyclinic of MM Dunda Limboto Hospital with the results of the chi square statistical test showing a  $p\text{-value} = 0.002 (<0.05)$ .

### **SUGGESTION**

It is hoped that reading materials or references related to factors that can affect medication adherence in schizophrenia patients, so that students get knowledge that is in accordance with the latest practices.

Hospitals can use this research as a reference material to improve services for patients and their families by developing a program to increase medication adherence so that there is no recurrence of schizophrenia patients due to a lack of knowledge and family support in controlling and helping people take medication.

It is hoped that the family will continue to provide optimal support by playing an active role during the treatment process of schizophrenia patients. The family continues to control the patient in taking medication so that the patient's stability is always maintained.

It is hoped that the results of this study will be the basis and source in future research and it is expected to examine other factors with an increased number of samples. Based on the results of the study, family knowledge and support greatly affect the medication adherence of schizophrenia patients. For this reason, the researcher continues to educate families to continue to accompany schizophrenic patients and not leave patients alone. In addition, researchers can then conduct research to look at other factors that can affect medication adherence in patients with schizophrenia such as patient factors, drug factors, and environmental factors.

There is a need for adherence-enhancing interventions that place more emphasis on education, social support, appropriate therapy selection, and monitoring of side effects. In addition, it is necessary for nurses to continue to motivate patients and families so that medication adherence is maintained.



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