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**Determinants of the Recurrences of Patients with Mental Disorders in the Psychiatric Polyclinic of Santo Vincentius Hospital, Singkawang**

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**Abstract**

**Introduction:** Mental disorders are very dangerous for someone even though they do not directly cause death, if not handled properly, will cause intense suffering for the individual and family. The biggest problem faced by patients with mental disorders and their families is recurrence caused by non-compliance with medication, family and environmental factors.

**Objectives:** The research objective was to determine the effect of social support, socioeconomic, knowledge, family support, and medication adherence on relapse in mental patients.

**Methods:** The research method used quantitative descriptive with cross-sectional design. The study population was all patients with mental disorders who visited the Psychiatric Polyclinic of Santo Vincentius Hospital in January 2019, totaling 600 people. The research sample consisted of 110 patients with mental disorders who were taken using the purposive sampling technique. The research instrument used a questionnaire, the results of which were analyzed using multivariate data.

**Results:** The results showed that social support (p-value 0.031, odds ratio 3.253), socioeconomic (p-value 0.012, odds ratio 3.557), knowledge (p-value 0.033, odds ratio 2.966), family support (p-value 0.015, odds ratio 7,845), and medication adherence (p-value 0.041, odds ratio 3.045) affected the recurrence of mental disorders patients at the Psychiatry Polyclinic of Santo Vincentius Hospital 2020.

**Conclusion:** The variable that had the greatest influence on the recurrence of mental disorders was family support. It is hoped that the family always strives to increase their support for patients by motivating patients, especially in taking medication, trying to meet the needs of patients in their treatment, and improving communication with patients.

**Keywords:** Family Support, Recurrence, Mental Disorders, Psychiatry, Schizophrenia

**Introduction**

Mental disorders are very dangerous for someone even though they do not directly cause death, if not handled properly or allowed to cause very deep suffering for the individual and will be a heavy burden for families who live with someone who has mental disorders.<sup>1</sup> As we all know that mental health disorders are not just psychological symptoms but are very broad, starting with sufferers who experience mild symptoms such as anxiety and depression, laziness to work, frequent absences from work, inability to cooperate with coworkers, frequent anger, drug addiction, alcohol, cigarettes, dementia in the elderly, autism in children to very severe cases such as schizophrenia.

If someone with mental disorders is left alone, it will cause the burden caused by mental disorders to be even greater.<sup>1</sup> In life, it is not uncommon for very serious social impacts in the form of rejection, exclusion, and discrimination, which have an impact on the economy in the form of losing productive days for someone to earn a living for the sufferer's family must be cared for so that it becomes a burden for the family, and the family also cannot work because they have to take care and keep an eye on him. The high cost of care that must be borne by families and communities is also a problem in itself.<sup>2</sup>

Basic Health Research conducted by the Ministry of the Republic of Indonesia concluded that the prevalence of mental-emotional disorders showing symptoms of depression and anxiety, aged 15 years and over, reached around 14 million people or 6% of the total population of Indonesia. The prevalence of serious mental disorders, such as schizophrenia, reaches around 400,000 people or as much as 1.7 per 1,000 population. Provinces with the largest mental disorders were Yogyakarta (0.27%), then Aceh (0.27%), South Sulawesi (0.26%), Bali (0.23%), and Central Java (0, 23%) of all provinces in Indonesia.<sup>3</sup> Riskesdas 2013-2018 data shows that the number of people with mental disorders in West Kalimantan ranks 8 out of all provinces in Indonesia. The prevalence of schizophrenia is 0.23% of the total population exceeding the normal rate of 0.17%.<sup>4</sup>

Based on research conducted by Yuniarta, it was found that the most psychosocial factors caused the first attack on schizophrenic patients who were treated at Dr. Mental Hospital. Radjiman Wediodiningrat Lawang for the period March-May was a disappointment toward parents with 48 sufferers or 28.57%. While the psychosocial stressors with the most cases were economic factors with 51 patients or 30.36%. Data obtained from the study, it is known that the new sufferers of schizophrenia are 25-44 years old, men who do not have a job and are with no educational background.<sup>5</sup> The recurrence rate of people with mental disorders is 25% in the first year, 70% in the second year, and even 100% in the third year. Apart from the high rate of recurrence, the frequency of recurrences and the proportion of relapses within one year add to the problem of managing schizophrenia. The results of a survey conducted by the World Federation of Mental Health in 2016 of 697 psychiatrists and 1082 families showed that 37% of families said their family members had relapsed five times or more after being diagnosed with schizophrenia. Schizophrenic patients will experience a recurrence of 50% in the first year and 70% in the second year.<sup>6</sup>

The factors that cause mental disorders in a person vary depending on the types of mental disorders experienced. In general, mental disorders are caused by psychological pressure caused by pressure from outside a person or pressure from within a person which causes a person to experience mental disorders. Ignorance of families and communities about the types of mental disorders, if not addressed it will be worse for someone. Identify how family support, ethnicity and medication adherence will also affect them,<sup>7</sup> as well as caring for family members with mental disorders become a burden for the family. Unreasonable patient behavior, views of the surrounding community, long periods of taking medication, etc. are experiences that are unique to the family. Apart from that, the socio-economic impacts arising from the mildest to the most severe mental disorders vary widely. The most severe impact felt by the family if one of the family members has serious mental disorders is the emergence of a bad stigma and a bad community perception of the family, so that it is likely that the family can be isolated and embarrassed in socializing.<sup>8</sup>

At the Santo Vincentius Hospital, patients with mental disorders visiting outpatients have increased since 2014, amounting to 945 a year, in 2015 it increased to 1,300, in 2016 there was an increase again 1,689, in 2017 it increased again to 2,101, in 2018 it increased again to 2,687. This condition caused mental specialists to increase the frequency of services, where from 2014 to 2018 psychiatrists provided services 2 times a week, but since 2019 it has become 3 times a week considering the increasing number of patient visits. The biggest problem faced by patients with mental disorders and their families is a relapse that results from non-adherence to medication. Non-compliance as one of the causes of relapse adds to the burden on the family as a caregiver. The phenomenon of non-adherence to therapy for mental patients and family support for non-adherence has not been widely studied in Indonesia. The role of mental health personnel to improve adherence to therapeutic regimens is not optimal. The purpose of this study was to determine the effect of social support, socioeconomic, knowledge, family support, and medication adherence on relapse in mental patients.

## Methods

This type of research is quantitative research. The research design used was cross-sectional. This research was conducted at the Santo Vincentius Hospital, Singkawang in January 2020. The study population consisted of all psychiatric patients visiting the Psychiatric Polyclinic of Santo Vincentius Hospital in January 2020, totaling 600 people. The sample is part of the number and characteristics of the population.<sup>9</sup> The study sample consisted of 110 mental patients who were taken using purposive sampling technique, namely the technique of determining the sample with certain considerations in which each patient with mental disorders was selected based on certain considerations aimed at making the data obtained more representative and following the sample criteria.<sup>10</sup>

The sample requirements must meet several criteria, including inclusion criteria consisting of mental patients who visited the Psychiatry Polyclinic of Santo Vincentius Hospital in January 2020, we're willing to become respondents, and were available at the time of data collection to fill out the questionnaire. The non-inclusion criteria consisted of non-mental patients who visited the Psychiatric Polyclinic of Santo Vincentius Hospital in January 2020. The exclusion criteria consisted of patients with mental disorders whose data were incomplete in filling out the questionnaire and were unwilling to become respondents or were not present at the time of data collection. even though it has become the target population.

The data collected includes primary data obtained by using questionnaires that have been validated and reliable by the families of mental disorders patients, while secondary data is obtained from existing data such as the prevalence rate of people with mental disorders and the profile of the study site. The questionnaire measurement method was used for the independent and dependent variables used in this study using the Likert and Guttman scales. Presentation of data in textual form, to describe or explain the data that has been presented in tabular form. Data analysis used univariate analysis which aims to explain or predict the characteristics of each of the variables studied.<sup>10</sup> In addition, using multivariate analysis with multiple logistic regression hypothesis testing to see whether or not there was an effect of social, socio-economic support, knowledge, family support, and medication adherence to recurrence in mental patients.

## Results

**Table 1.** Results of the Univariate Analysis of Research Variables

Variable	n	%
Recurrence of Mental Disorder		
2 times	36	32,7
> 2 times	74	67,3
Social Support		
Supportive	71	64,5
Unsupportive	39	35,5
Socio-Economic		
High ( $\geq$ APG)	41	37,3
Low ( $<$ APG)	69	62,7
Knowledge		
High	66	60,0
Low	44	40,0
Family Support		
Supportive	83	75,5
Unsupportive	27	24,5
Obediency to Take Medication		
Obedient	63	57,3
In obedient	47	42,7

Based on the results of the study in table 1, it is known that the majority of mental disorders patients at the Psychiatric Polyclinic of Santo Vincentius Hospital Singkawang experienced a recurrence of

mental disorders > 2 times as many as 74 (67.3%) mental disorders patients, had social support in healing mental disorders as many as 71 (64, 5%) patients with mental disorders, have a low socioeconomic status as many as 69 (62.7%) patients with mental disorders, the families of patients with mental health disorders have high knowledge in curing mental disorders as many as 66 (60.0%) patients with mental disorders, 83 (75.5%) mental disorder patients had family support, and 63 (57.3%) patients with mental disorders were obedient to taking mental disorders.

**Table 2.** Results of Multivariate Analysis of Research Variables

Variable	B	R Square	p-value	Odds Ratio (OR)	95%CI	
					Lower	Upper
Social Support	1,180	0,374	0,0 31	3,253	1,1 12	9,5 17
Socio-Economic Knowledge	1,269		0,0 12	3,557	1,3 23	9,5 62
Family Support	1,087		0,0 33	2,966	1,0 90	8,0 70
Obediency to Take Medication	2,060		0,0 15	7,845	1,4 94	41, 195
Constant	1,114		0,0 41	3,045	1,0 47	8,8 56
	-8,268		0,0 00	0,000		

The results of the multiple logistic regression analysis hypothesis tests in Table 2 obtained a p-value of 0.041 (p-value <0.05), it can be concluded that there is an influence between medication adherence to recurrence of mental disorders patients. In addition, an OR value of 3.045 is obtained, meaning that patients with mental disorders who are not compliant in taking mental disorders have a 3.045 times chance of experiencing a recurrence of mental disorders >2 times compared to patients with mental disorders who are obedient in taking mental disorders medication. The influence of social support, socioeconomic, knowledge, family support, and medication adherence to recurrence of mental illness patients was 37.4%. In addition, the variable that has the greatest influence on the variable of mental disorder patients recurrence in the Psychiatry Polyclinic of Santo Vincentius Singkawang Hospital in 2020 is family support, because it has the greatest OR value among other variables.

### Discussion

The multivariate analysis phase begins with a bivariate selection, after which the multivariate modeling testing is carried out. The results of bivariate selection between the independent variable and the dependent variable, all variables produce p-value <0.25, so that all variables can be continued into multivariate analysis and can enter the multivariate model to be analyzed multiple logistic regression tests.

Based on the results of the final multivariate modeling in table 2 with hypothesis testing using multiple logistic regression, the p-value is 0.031 (p-value <0.05), it can be concluded that there is an influence between social support on recurrence of mental disorders patients. In addition, an OR value of 3.253 was obtained, meaning that patients with mental disorders who do not have social support for healing mental disorders have a 3.253 times chance of experiencing a recurrence of mental disorders >2 times compared to patients with mental disorders who have social support in curing mental disorders. The results of the multiple logistic regression analysis hypothesis tests obtained a p-value of 0.012 (p-value <0.05), it can be concluded that there is a socio-economic influence on the recurrence of mental illness patients. In addition, an OR value of 3.557 was obtained, meaning that patients with mental disorders who have low socioeconomic conditions in curing mental disorders have a 3.557 times chance of experiencing a recurrence of mental disorders >2 times compared to patients with mental disorders who have high socioeconomic conditions in curing mental disorders.

The results of the multiple logistic regression analysis hypothesis tests obtained p-value of 0.033 (p-value <0.05), it can be concluded that there is an influence between the knowledge of the patient's family on the recurrence of mental disorders patients. In addition, an OR value of 2,966 was obtained, meaning that patients with mental disorders whose families have low knowledge in healing mental disorders have a 2.966 times chance of experiencing a recurrence of mental disorders >2 times compared to patients with mental disorders who have families with high knowledge in healing mental disorders. The results of the multiple logistic regression analysis hypothesis tests obtained p-value of 0.015 (p-value <0.05), it can be concluded that there is an influence between family support on recurrence of mental disorders patients. In addition, an OR value of 7,845 was obtained, meaning that patients with mental disorders who do not have family support for mental disorders have a 7,845 times chance of experiencing a recurrence of mental disorders >2 times compared to patients with mental disorders who have family support in curing mental disorders.

### **The Effect of Social Support on Mental Patients Recurrence**

The results of the multiple logistic regression analysis hypothesis tests obtained a p-value of 0.031 (p-value <0.05), it can be concluded that there is an influence between social support on mental patient recurrence at the Psychiatric Polyclinic of Santo Vincentius Hospital Singkawang in 2020. In addition, it was obtained The Odds Ratio (OR) value is 3.253, meaning that patients with mental disorders who do not have social support for healing mental disorders have a 3.253 times chance of experiencing a recurrence of mental disorders >2 times compared to patients with mental disorders who have social support in curing mental disorders.

Schizophrenic patients who received little social support were 1.46 times more likely to experience a relapse than schizophrenic patients who received a lot of social support. Satisfaction with social support, including satisfaction with emotional, instrumental, and informational support, has an effect on the relapse of schizophrenia after hospitalization. Schizophrenic patients who were dissatisfied with social support were 1.45 times more likely to experience a relapse than schizophrenic patients who received social support satisfaction. Previous research on the effect of social support on schizophrenia recurrence.<sup>11</sup>

Social support influences health, especially for people in stressful conditions. Schizophrenic patients experiencing social decline become alienated from others, causing loss of social support. Chronic schizophrenic patients who experience frequent relapses are often overlooked and are not considered to need social support. Whereas the availability of support has a positive effect on health care, helps psychological adjustment to disease, prevents stress, and improves survival. The level of social support is determined by the quantity aspect, namely the number of people available to provide assistance and the quality aspect of satisfaction with the support provided.<sup>12</sup>

According to the assumptions of researchers, schizophrenia is a serious mental disorder, which is stressful not only for the patient but also for the family. The social support a person receives can reduce the impact of a stress assessment. Statistically, there is a significant effect between the amount of social support including the amount of emotional, instrumental, and informational support that has an effect on the relapse of schizophrenic patients after hospitalization.

### **Socio-Economic Influence on Mental Patient Recurrence**

The results of the multiple logistic regression analysis hypothesis tests obtained a p-value of 0.012 (p-value <0.05), it can be concluded that there is a socio-economic influence on the recurrence of mental patients at the Psychiatric Polyclinic of Santo Vincentius Hospital Singkawang in 2020. In addition, it was obtained The Odds Ratio (OR) value is 3.557, meaning that patients with mental disorders who have low socioeconomic conditions in curing mental disorders have a 3.557 times chance of experiencing a recurrence of mental disorders > 2 times compared to mental disorders patients who have high socioeconomic conditions in curing mental disorders.

Based on the results of Cahyati's research, a p-value was obtained of 0.007 (<0.05) so that it can be concluded that there is an influence between the economic status of the family and the frequency of recurrence in schizophrenic patients at the Grhasia Mental Hospital, Yogyakarta, with a closeness of the effect of -0.257 indicating the closeness of the strong influence with the nature of the negative effect, which means that the economic status of the family is low, the frequency of recurrence is high and if the economic status is high, the frequency of recurrence is low, this can be

said to be inversely proportional to the dependent variable and the independent variable.<sup>13</sup>

Friedman explained that the characteristics of clients with low economic resources are less able to meet the basic needs of their families.<sup>14</sup> Stuart explained that someone with a stable income can better protect himself and his family from mental disorders. This explanation confirms that the economic level affects the pressure of client needs which can increase client stressors.<sup>15</sup>

According to the assumptions of researchers, economic pressure triggers people to be vulnerable to mental disorders. Poverty creates various problems that make life difficult. Poverty increases a person's frustration so that schizophrenia patients in poor families tend to experience frequent relapses.

### **The Effect of Knowledge on Recurrence of Mental Patients**

The results of the multiple logistic regression analysis hypothesis tests obtained a p-value of 0.033 (p-value <0.05), it can be concluded that there is an influence between the patient's family knowledge on the recurrence of mental patients at the Psychiatry Polyclinic of Santo Vincentius Hospital Singkawang in 2020. In addition, obtained an OR value of 2.966, meaning that patients with mental disorders whose families have low knowledge in healing mental disorders have a chance of 2.966 times experiencing a recurrence of mental disorders >2 times compared to patients with mental disorders who have families with high knowledge in healing mental disorders.

The results of statistical tests in Rahmi et al's study showed that there was a significant influence between the level of family knowledge and the recurrence of mental illness patients, this can be seen from the p-value which is smaller than  $\alpha$  (0.05), namely 0.003. From the results of the study, information was obtained that most of the proportion of family knowledge that was lacking with relapse patients was 96.4% (27 people) greater than families with non-relapse patients 3.6% (1 person). The proportion of adequate knowledge with relapse patients was 55.6% (5 people) greater than families with non-relapse patients 44.4% (4 people). While the proportion of good knowledge of families with patients who did not relapse was 66.7% (4 people) greater than families with relapse patients 33.3% (2 people).<sup>16</sup>

This study supports the research of Yusnifah, regarding the level of family knowledge in caring for hallucinated patients which indicates the importance of knowledge for families in caring for mental patients.<sup>17</sup> The results of this study are the same as the research conducted by Eltidawati, on the effect of family knowledge in caring for violent behavior clients with recurrence which shows that there is a significant influence between family knowledge and recurrence of violent behavior. Based on the analysis, it was found that the knowledge of the family who cared for the client affected the recurrence of the client with mental disorders. From the results of these studies, it can be concluded that there is a need to increase family knowledge about caring for mental disorders clients, especially about mental disorders. Sources of knowledge can come from hospital staff information. The form of information can be in the form of counseling about mental disorders and recurrence of mental disorders.<sup>18</sup>

Thus, the researchers assumed that a good knowledge of the patient's family would have a good impact on the client's recovery. In this case, the level of family knowledge can minimize or minimize the occurrence of recurrence in mental disorders clients by increasing family knowledge about mental disorders.

### **The Effect of Family Support on Mental Patient Recurrence**

The results of the multiple logistic regression analysis hypothesis tests obtained a p-value of 0.015 (p-value <0.05), it can be concluded that there is an influence between family support on recurrence of mental patients at the Psychiatric Polyclinic of Santo Vincentius Hospital Singkawang in 2020. In addition, it was obtained The Odds Ratio (OR) value is 7,845, meaning that patients with mental disorders who do not have family support in curing mental disorders have a chance of 7,845 times to experience a recurrence of mental disorders >2 times compared to patients with mental disorders who have family support in curing mental disorders.

The results of this study are in line with the research conducted by Ali M, there is an effect of family support on recurrence of mental illness patients at Regional Province Hospital South Sulawesi. The results showed that family support (p = 0.018) for relapse with logistic regression

test.<sup>19</sup>

The family support factor is the closest and inseparable part. Patients will feel happy and at ease when they get attention and support from their families because this support will raise their confidence to face and manage disease better. And sufferers are willing to obey the suggestions given by the family to support disease management.<sup>8</sup>

According to the researcher's analysis, there is an effect of family support with recurrence in mental disorders patients, good support will certainly have an impact on someone's psychology because sufferers will feel happy and at ease when they get attention and support from their families because with this support it will raise their confidence to face and manage the disorders that exist in his soul better. As well as the patient is willing to obey the advice given by the family to support the management of the mental disorder they suffer. It is possible to carry out therapy or medication recommended by a doctor, so that family support is needed to always support and give special attention to family members who have mental disorders.

### **Effect of Compliance with Medication Against Mental Patients Recurrence**

The results of the multiple logistic regression analysis hypothesis tests obtained a p-value of 0.041 (p-value <0.05), it can be concluded that there is an influence between medication adherence to recurrence of mental patients at the Psychiatric Polyclinic of Santo Vincentius Hospital Singkawang in 2020. In addition, Obtained an Odds Ratio (OR) value of 3.045, meaning that patients with mental disorders who are not compliant in taking mental disorders have a 3.045 times chance of experiencing a recurrence of mental disorders >2 times compared to patients with mental disorders who are obedient to taking mental disorders.

The results of this study are in line with the research conducted by Melda Dwi Lestari, there is an effect of medication adherence on the relapse rate in schizophrenic patients. The results obtained with the crosstabulation results are the known prevalence of medication adherence in obedient schizophrenic outpatients as many as 17 patients with mental disorders (53%) in patients who experience recurrence of 23 people (71.87%) of the 32 people studied. . The results of the chi-square table (25,000 > 3,841) and a significant value <0.05 (0.00 <0.05).<sup>20</sup>

External factors for recurrence of mental disorders, namely adherence to taking medication, adherence of mental disorders patients in taking medication is very important, the drug must be used in an effective dose for a sufficient time. Therapeutic response and the emergence of side effects should be given as soon as possible. Drugs used to treat psychosis have many names, namely: antipsychotic drugs, and neuroleptics. Drug therapy is important for nurses to know because its effectiveness refers to the maximum therapeutic effect obtained by the drug. This is related to the compliance with drugs consumed by sufferers. Low-potency drugs need to be administered in high doses to be effective, whereas high-potency drugs are effective at low doses.<sup>20,21</sup>

According to the researcher's analysis, the effect of medication adherence to recurrence in patients with mental disorders is closely related, because every disease has a cure, with this mental disorder can be overcome with regular treatment, thus the prevalence of patient recurrence can be reduced or the patient does not relapse due to the treatment process. the client is carried out by the doctor's recommendations and instructions, so that patient compliance with medication is considered good and the prevalence of patient recurrence is reduced.

### **Conclusion**

Based on the results of this study, it can be concluded that there is an effect of social support, socio-economic, knowledge, family support, and medication adherence on the relapse of mental patients at the Psychiatric Polyclinic of Santo Vincentius Hospital Singkawang in 2020. The variable that has the greatest influence on the relapse of mental illness patients is family support. Sufferers will feel happy and at ease if they get attention and support from their families because this support will raise their confidence to face and manage the disease better.

It is hoped that the family always strives to increase their support for patients by motivating patients, especially in taking medication, trying to meet the needs of patients in their treatment, and improving communication with patients. It is hoped that the next researchers will examine apart from the variables studied in this study, there are still many variables that influence mental patient recurrences, such as support from health professionals, support from community leaders, health



facilities, and motivation to be healthy again.

### Conflict of Interest Declaration

This research has no conflict of interest with any institution

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