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MOOD STABILIZER MEDICATION ADHERENCE IN BIPOLAR PATIENTS DURING COVID-19 WITH MMAS-8 METHOD

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ABSTRACT

Bipolar is a relapsing disease, a longer duration of treatment is expected to achieve the success of initial therapy. Mood stabilizers are medications to control the mood of people with bipolar disorder. The purpose of the study is to determine adherence to taking mood stabilizer drugs in bipolar patients during the Covid-19 pandemic. The research used descriptive quantitative method with non-probability sampling and the MMAS-8 questionnaire as the instrument. The researchers analyzed data starting from the editing, coding, to processing stages with the help of software. The results of the study show that 21.3% of the drugs used were risperidone. Respondents forgot to take medication as much as 85.3%. Respondents for two weeks did not take medication as much as 78.7%. As many as 60% of respondents had reduced the use of drugs. As many as 72% of respondents have forgotten to bring their medicine when traveling. As many as 81.3% of respondents had taken medicine yesterday. As many as 64% of respondents stopped taking the drug. As many as 77.3% of respondents feel uncomfortable taking medicine every day. As many as 82.7% of respondents had difficulty taking medicine. In conclusion, 87.5% did not comply with taking mood stabilizing drugs during the Covid-19 pandemic and 12.5% complied, because during the Covid-19 pandemic, access to control was limited so that it was difficult to get medicine.

INTRODUCTION

Bipolar disorder is a recurrent episode of mood and activity changes in phases of mania and depression, with periods of relative normality in between (Dahlgren et al., 2018; Esaki et al., 2021; Marzani & Price Neff, 2021). Bipolar disorder is associated with disorders that have characteristics such as ups and downs in mood, activity and energy (Mintz, 2015; Moncrieff, 2014). Bipolar affective disorder is characterized by mood swings between the manic phase (mood elevation) and the bipolar depressive phase which causes significant personal distress and social dysfunction, which is not caused by drugs or physical disorders (Datta et al., 2021; Vasudev et al., 2012).

Bipolar is a recurrent disease, so long-term treatment is usually recommended and necessary to achieve early therapeutic success (Grande et al., 2013). Efforts to prevent the relapse phase in bipolar sufferers are by taking drugs. Mood stabilizer type drugs have a significant impact on balancing brain neurotransmitters in bipolar disorder sufferers so as to reduce the requent phase. There are two types of patients who are not adherent to drugs, namely International Adherence, where the patient stops the treatment process or reduces the dose without the doctor's knowledge. While Unintentinal Adherence, which depends on the patient's cognition ability such as forgetting (Zannah et al., 2018).

The main therapy for episodes of mania in bipolar disorder is mood stabilizer agents or antipsychotics, or a combination of both. Meanwhile, the main therapy used for depressive episodes in bipolar sufferers is a mood stabilizer agent.

Mood stabilizers are drugs used to control mood or mood in people with bipolar disorder, which can be depression or manic episodes. Antidepressants can be used with mood stabilizers to reduce the risk of mood swings becoming mania and after patients fail to respond to therapy with mood stabilizers (Malone et al., 2016).

However, around 42% of 150 people with bipolar disorder in Indonesia complain about the difficulty of obtaining drugs commonly consumed during the Covid-19 pandemic. In addition, limited visits to psychiatrists by hospitals based on a circular letter from IDI, psychiatrists can only accept a maximum of 3-5 patients with working hours of at least 10 hours per day adding to the difficulty of a bipolar disorder survivor to get a drug prescription (Renaldo, 2020).

Based on the above problems, the purpose of the study is to determine adherence to taking mood stabilizer drugs in bipolar patients during the Covid-19 pandemic. The researchers would like to know the adherence of taking mood stabilizer drugs in patients with bipolar disorder during the Covid-19 pandemic using the MMAS-8 method. The results of this study can be used as comparison material or as a basis. Further research to obtain better results and knowing the adherence of taking mood stabilizer medication in bipolar sufferers during Covid-19 and gives an idea of the adherence of taking mood stabilizer medication.

METHOD

The research conducted is quantitative research with descriptive methods. Using questionnaires distributed using Google Forms with non-probability sampling or based on researcher policies. The location of this research was conducted at Komunitas Rumah Kita - Bipolar Care Indonesia Bandung branch and the research time was in April - May 2022.

The population taken in the research is patients with a diagnosis of Bipolar disorder in one of Rumah Kita Community - Bipolar Care Indonesia with a total of 300 members. The sample taken in this study was a sufferer of Bipolar Disorder in one of the Rumah Kita Community - Bipolar Care Indonesia. The method carried out in determining samples by calculating the Slovin formula as follows:

$$n = \frac{N}{1 + (N \times e^2)}$$

$$n = \frac{300}{1 + (300 \times 0{,}1^2)}$$

$$n = \frac{300}{1 + (300 \times 0{,}01)}$$

$$n = \frac{300}{1 + 3}$$

$$n = \frac{300}{4}$$

$$n = 75$$

Information:
n = sample size
N= population size
e = percentage of incorrect/mismatched data (10%)

In addition to using the Slovin formula, researchers also use inclusion and exclusion criteria for population selection and sample. The inclusion criteria in this study were patients in late adolescence, early adulthood, and late adulthood with bipolar diagnosis in Komunitas Rumah Kita - Bipolar Care Indonesia. As for the exclusion criteria, namely patients with bipolar diagnosis but with psychosocial treatment.

The use of this research instrument is in the form of distributing questionnaires containing adherence to taking drugs derived from MMAS-8 which includes 8 questions. To test the validity of the instrument, researchers use validity and reliability tests. Then in the final stage, researchers analyze data starting from the editing, coding, to processing stages with the help of software.

RESULT AND DISCUSSION

Characteristics of Respondents

Table 1. Characteristics of Respondents

Characteristic	Total (n)	Percentage (%)
Gender		
Woman	42	56%
Man	33	44%
Age		
17-25 Years	58	77,3%
26-35 Years	16	21,3%
36-45 Years	1	1,4%
Education		
SMA	8	10,7%
Student	54	72%
S1	12	16%
S2	1	1,3%

Based on the table above where researchers used 75 respondents, when viewed from gender dominated by women, namely 42 people with a percentage of 56%. Bipolar disorder is more susceptible to occur in women due to changes in the hormone estrogen in the body owned by women who have risk factors for disorders of their feelings (Swaab & Bao, 2020; Wieczorek et al., 2023).

Judging from age, it is dominated by late adolescents aged 17-25 years with a percentage of 77.3%. Adolescence is a period of transitional development from childhood to adulthood that

includes biological, cognitive and social-emotional changes (Anil & Bhat, 2020; Padilla-Walker & Van der Graaff, 2022). In this transitional period, the age range ranges from 12 - 22 years, where in the process physical and psychological maturation occurs. Adolescence is a period of solidification of life stance which sometimes has difficulty in determining self-identity, purpose and life stance. Adolescents who experience these difficulties are at risk of bipolar disorder.

Last seen from the last education, respondents were dominated by students, namely 54 people with a percentage of 72%. Students have high negative emotions due to the transition period that students are experiencing and changes in social conditions and different learning conditions make students experience high anxiety and are prone to suffering from depression (Andrews & Wilding, 2004; Browning et al., 2021; El-Monshed et al., 2022).

Drugs Used by Respondents

Table 2. Medications used by Respondents

Drug Name	Sum	Present (%)
Aripiprazole	9	12%
Clozapine	2	2,7%
Fluoxetine	14	18,7%
Lamotrigin	3	4%
Olanzapine	13	17,3%
Quatiepine	8	10,7%
Risperidone	16	21,3%
Setraline	10	13,3%

In the drugs used from 75 respondents, it was dominated by risperidone according to research by the Mulawarman Pharmaceutical Conference in 2019 that risperidone is an antipsychotic as well as a mood stabilizer that can improve cognitive function in patients (Rifaya et al., 2019). In research conducted by Geller and Hass that risperidone is significantly better for mania therapy because the mechanism of action of risperidone can decrease dopamine activity and increase serotonin activity, this causes manic and depressive symptoms to be overcome quickly. The use of risperidone with low doses can also be the best alternative to the treatment of bipolar disorder (Elsayed et al., 2022; Kishi et al., 2022).

Adherence to taking medication

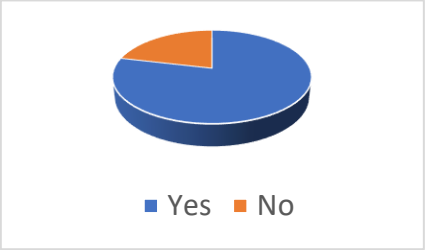
1) Do you sometimes forget to take mood stabilizer medication during the Covid-19 pandemic?



Picture 1. Pie Chart Forgetting to take medicine

In the results above, 85.3% or 64 people answered Yes and 14.7% or 11 people answered No. It can be concluded that most respondents forgot to take mood stabilizer medication during the Covid-19 pandemic.

2) For the past two weeks, have you not taken a mood stabilizer one day?



Picture 2. Pie Chart for Two Weeks of Drinking Medicine

In the results above, it was obtained from 75 respondents, 78.7% answered Yes or 59 people and 21.3% or 16 people answered No. It can be concluded from these data that during the last two weeks most respondents did not take medication.

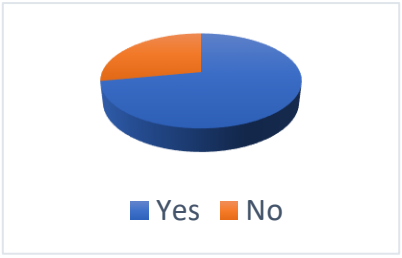
3) Have you ever reduced or stopped using mood stabilizer drugs during this pandemic without telling your doctor because you felt worse/uncomfortable while using the drug?



Picture 3. Pie Chart Reduce or Stop Medication Use

In the results above, it was found that 60% or 45 people answered Yes and 40% or 30 people answered No. It can be concluded that most respondents have reduced or stopped the use of mood stabilizer drugs during a pandemic without telling a doctor.

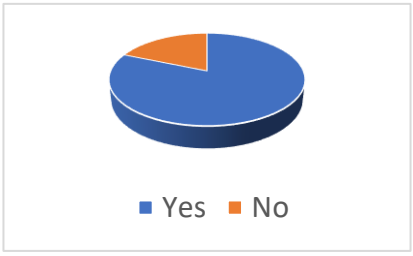
4) When traveling, have you ever forgotten to bring a mood stabilizer medicine?



Picture 4. Pie Chart "Forgetting to Bring Medicine"

In the results above, it was found that 72% or 54 people answered Yes and 28% or 21 people answered No. It can be concluded that most respondents have forgotten to bring mood stabilizer medication while traveling.

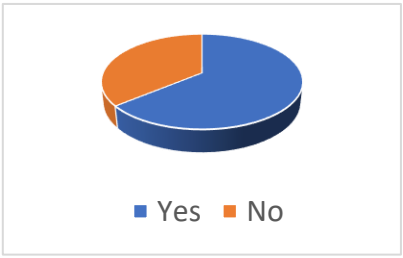
5) Did you take mood stabilizer yesterday?



Picture 5. Pie Chart "Yesterday Taking Medicine"

On the results in above, 81.3% or 61 people answered Yes and 18.7% or 14 people answered No. It can be concluded that most respondents obeyed because they took mood stabilizer drugs.

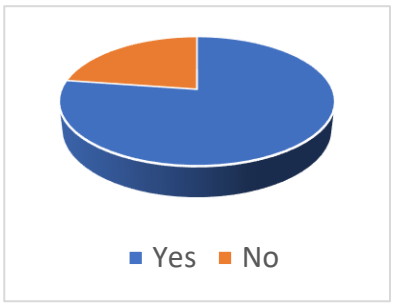
6) When you feel better, do you sometimes choose to stop taking mood stabilizer medication?



Picture 6. Pie Chart "Stop Taking Medication"

In the results above, it was found that 64% or 48 people answered Yes and 36% or 27 people answered No. It can be concluded that most respondents choose to stop taking mood stabilizer drugs when they feel the situation is improving.

7) Some people feel uncomfortable taking mood stabilizer medication every day, have you ever felt disturbed because of such a situation?



Picture 7. Pie Chart "It is Uncomfortable to Take Medicine"

In the results above, 77.3% or 58 people answered Yes and 22.7% or 17 people answered No. It can be concluded that most respondents feel uncomfortable taking medicine every day.

8) How often do you have trouble taking mood stabilizer medication?
   a. Never
   b. Occasionally (1x a week)
   c. Sometimes (2-3x a week)
   d. Often (4-6x in a week)
   e. Always (7x in a week)

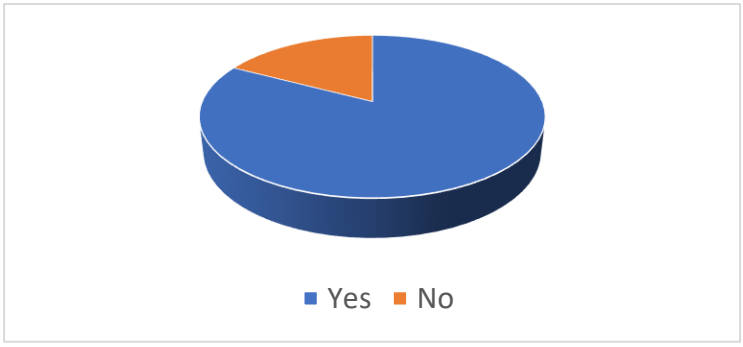


Figure 8. Pie Chart "Difficult to Take Medication"

In the results above, 82.7% or 62 people answered Yes and 17.3% or 13 people answered No. It can be concluded that most respondents often have difficulties when taking mood stabilizer drugs.

In adherence to taking medication from 8 questions, 7 questions indicate non-compliance with taking medication during the Covid-19 pandemic. Or 87.5% did not comply with taking mood stabilizer drugs during the Covid-19 pandemic and 12.5% obeyed. This is because during the Covid-19 pandemic, access to control was limited, which had an effect on the difficulty of obtaining this mood stabilizer drug.

However, from non-compliance with taking this drug will cause an increasingly unstable mood effect. Drug non-adherence is largely based on the level of knowledge of bipolar disorder

sufferers. There are sufferers whose level of knowledge is low, medium and high. Some really understand about the effects and content of each drug and there are also those who do not understand about drugs at all. There are those who are drug compliant because they have felt the effects of getting better after drug consumption and there are also those who do not take drugs at all even though they have more knowledge about bipolar disorder and therapy just because they are afraid of dependence and cannot be separated from drugs (Renaldo, 2020).

CONCLUSION

Based on research on adherence to taking mood stabilizer medication in patients with bipolar disorder during the Covid-19 pandemic conducted that 87.5% were non-compliant and 12.5% were obedient. It can be interpreted that adherence to taking mood stabilizer medication is low. One of the factors for patient non-compliance is due to limited access to control during the COVID-19 pandemic which has the effect of difficulty obtaining drugs.

This study was conducted for two months, due to limited short research time so that researchers have not been able to dig deeply into the factors that cause non-compliance of bipolar patients consuming mood stabilizers. Researchers hope to be continued by future researchers. As well as sampling is carried out face-to-face.

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