Patterns Of Medication Prescribing In Adolescent Patients With Mental Disorders At Krakatau Medika Hospital City Of Cilegon For The Period Of January–December 2023

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Article Info	ABSTRACT
Keywords: Prescribing Patterns, Mental Disorders, Adolescence,	Mental Disorders or Mental Illness is a disease that affects the sufferer's emotions, thought patterns and behavior, a term that refers to various conditions that affect feelings and mood. This study aims to determine the pattern of drug prescribing in adolescent patients with mental disorders at Krakatau Medika Hospital, Cilegon City for the period January - December 2023. This research is a descriptive study with retrospective data collection using patient medical record data. The sampling technique used in this research was Total Sampling using 61 samples. The variables used in this research are drug prescribing patterns, mental disorders, age and gender. The research results showed that the percentage of use of the Antidepressant drug class in the pattern of drug prescribing was higher than other psychopharmacological drug classes, patients received several types of drugs which were included in the Antidepressant drug group and there were combinations of drugs other than the Psychopharmaca drug class. Based on mental disorders, patients with depression are higher than other mental disorders, namely (44.30%). In the classification of adolescents aged 18 – 24 years, the highest percentage was at the age of 21 years, namely (23.00%) and gender, women experienced more mental disorders, namely 57.30%.
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INTRODUCTION

Mental health is an important aspect in realizing holistic health, as important as physical health. When someone experiences mental health disorders, this can affect various aspects of life, including the ability to function optimally in daily activities, the quality of social relationships, and productivity work. There is no health without mental health, as the definition of health put forward by the World Health Organization (WHO) states that "health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". Therefore, the existence of mental health disorders cannot be underestimated, because the number of cases is currently still quite worrying (Ayuningtyas et al., 2018). According to data from the World Health Organization (WHO), around 1 in 4

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people worldwide will experience mental disorders at some point in their lives. This shows that mental health problems are a very common problem and affect a large number of people from various backgrounds. With a world population of more than 7 billion people, an estimated 450 million people who experience mental disorders illustrates the magnitude of the impact of this problem globally. This figure covers various types of mental disorders, including anxiety disorders, depression, bipolar disorder, schizophrenia, and others. Basic Health Research (Riskesdas) conducted by the Health Research and Development Agency (Badan Litbangkes) every five years provides an overview of the condition of public health in Indonesia. In Riskesdas 2018, it was reported that the prevalence of depression in the population aged 15 years and over reached 706,689 people. This data is taken from community-based data collection throughout Indonesia and shows the importance of attention to mental health in Indonesia (Anggraeni & Maulina, 2023).

Mental health disorders often occur in anyone regardless of age, namely depression sufferers, generally characterized by reduced energy which causes decreased work productivity, experiencing disturbed sleep patterns, getting tired easily, losing self-confidence, sensitive feelings, feeling guilty and not. Depression can trigger drug or addictive substance abuse and can even give rise to the sufferer's desire to commit suicide (Hasanah et al., 2023). Mental disorders are generally characterized by feelings of depression, loss of interest or pleasure, decreased energy, feelings of guilt or low self-esteem, difficulty sleeping or reduced appetite, feelings of fatigue and lack of concentration. The condition can become chronic and recurrent, and can substantially interfere with an individual's ability to carry out daily responsibilities. At the most severe level, depression can lead to suicide. Symptoms of depression appear in various behaviors, some show lack of enthusiasm at school, don't want to interact with peers, cry for no reason, or become very sensitive and irritable. Mental disorders in teenagers are usually not diagnosed from the start and are only diagnosed after they experience serious difficulties at school or when adjusting to their peers. Mental disorders are caused by several factors, including genetic, biological, environmental and psychological factors. Banten is Province with a population of around 11.83 million people, is facing serious challenges related to health services. (Rama Noval Pratama et al., 2020). The aim of this research is to determine the pattern of drug prescribing in adolescent patients with mental disorders at Krakatau Medika Hospital, Cilegon City for the period January - December 2023.

METHODS

This research was conducted at the Krakatau Medika Hospital, Cilegon city was carried out in May - July 2024. Population is defined as all elements in research, whether objects or subjects, that have certain characteristics or traits and are targets for observation or analysis. The population in this study was 61 outpatient and inpatient mental disorder patients at Krakatau Medika Hospital in the 2023 period. The sample in this study consisted of 61 patients. The sample selected had to meet the inclusion criteria and not meet the following exclusion criteria:

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1) Inclusion Criteria
   a. Mentally Disordered Patients at Krakatau Medika Hospital, Cilegon City
   b. Mentally Disordered Patients aged 18-24 years.
   c. Inpatient and outpatient mental disorders in 2023.
2) Exclusion Criteria
   a. Medical record data held by patients with mental disorders is incomplete.
   b. Mentally Disordered Patients who do not receive drug therapy.

Data Analysis

The data analysis used univariate analysis to describe to collect of data in the form of frequency, value with the highest frequency, minimum value and maximum value of research variables, retrospective descriptive data from medical records to analyze drug prescribing patterns in grouped late adolescent patients with mental disorders. by category (Pattern drug prescriptions, age, gender and mental disorders) at Krakatau Medika Hospital, Cilegon, January period – December 2023. After the data has been collected and analyzed, it is then processed into percentages and frequencies and then presented in the form of tables and diagrams. By using the Percentage Formula:

$$P = F/N \times 100\%.$$

RESULTS AND DISCUSSION

Based on the results of research conducted at the Krakatau Medika Hospital, Cilegon City regarding drug prescribing patterns in adolescent patients with mental disorders at the krakatau medika hospital, cilegon city for the period January – December 2023. Viewed from medical record data with variables such as drug prescribing patterns, diseases mental disorders, patient age and patient gender, the following results were obtained :.
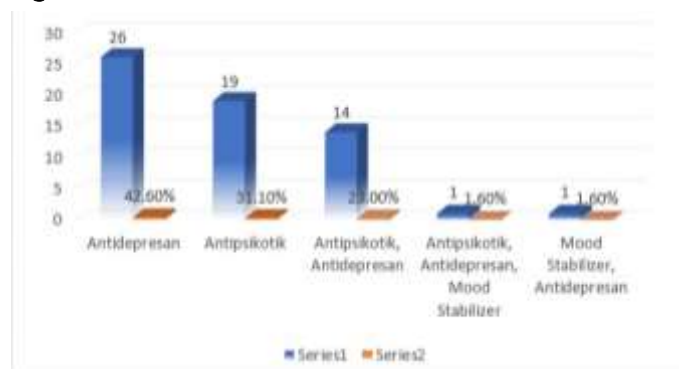
Based Drug Prescribing Patterns

Figure 1. Frequency distribution based on psychopharmacological drugs

The large number of uses of the antidepressant class of drugs is because there are more patients with depression disorders, so the percentage of use of antidepressant class drugs is higher and some patients with Bipolar disorders, Anxiety and Schizophrenia are prescribed class drugs antidepressants. This is because the main purpose of antidepressant drugs is to reduce symptoms of depression and improve mood and liver function as well as mental well-

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being. Antidepressant drugs work by affecting the balance of chemicals in the brain, especially neurotransmitters such as serotonin, norepinephrine and dopamine (Claridho, 2020).

Table 1. Frequency Distribution of Types of Medication with Depression Patients

No	Drug name	Frequency	Percentage (%)
1	Nopres	5	18.52%
2	Risperidone	3	11.11%
3	Haloperidol, hexymer	1	3.70%
4	Hexymer, Clozapine, Risperidone	1	3.70%
5	Depakote, Abilify Dismelt, Noprenia, Nopres, Olanzapine	1	3.70%

Many patients use the Nopres drug because Nopres, which contains the active ingredient fluoxetine, is a drug belonging to the Selective Serotonin Reuptake Inhibitors (SSRIs) antidepressant group, which works by increasing levels of serotonin, a neurotransmitter that plays an important role in regulating mood, sleep and emotions. . By increasing serotonin levels in the brain, fluoxetine helps improve symptoms of depression and other mood disorders. Risperidone is a mental disorder drug that works by blocking several receptors in the brain, such as dopamine, serotonin and alpha adrenergic receptors. This way of working can reduce the symptoms of psychotic disorders which are believed to originate from excessive activity between brain nerves through these receptors. This drug can help stabilize emotions, clear the sufferer's mind, and reduce the symptoms of psychosis, so that people with mental disorders can live their daily lives better, without interference from their symptoms.

Table 2. Frequency Distribution of Types of Medication with Depression and Anxiety Patients

No	Drug name	Frequency	Percentage (%)
1	Clozapine, Nopres, Valisanbe	1	20%
2	Elxion, Valisanbe	1	20%
3	Nopres, Valisanbe	1	20%
4	Abilify, Dismelt, Valisanbe	1	20%
5	Nopres	1	20%
	Total	6	100%

The types of drugs that are widely used are antidepressants and antipsychotics. Antidepressants are drugs used to treat depressive disorders and other conditions such as anxiety disorders, obsessive-compulsive disorders (OCD), panic disorders, and post-traumatic stress disorders (PTSD). This drug works by modifying the balance of chemicals in the brain known as neurotransmitters, such as serotonin, norepinephrine, and dopamine, which play an important role in regulating mood, while antipsychotics are drugs used to treat serious mental disorders such as schizophrenia, bipolar disorder, delusional disorder , as well as other psychotic disorders. This drug works by affecting neurotransmitters in the brain, especially dopamine, which is often imbalanced in patients with psychotic disorders. In

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addition, antipsychotics can also be used to control other symptoms, such as agitation, aggressiveness, or mania.

Table 3. Frequency Distribution Based on Drug Combinations

No	Drug name	Frequency	Percentage (%)
1	Vit B6	3	33.33%
2	Sucralfate Susp	2	22.22%
3	Analsik	2	22.22%
4	Paracetamol	1	11.11%
5	Braxidin	1	11.11%
	Total	5	100%

Based on the combination of drugs used in this prescribing pattern, many use Vitamin B6 (pyrodixine) which is needed in several metabolic processes. The body needs vitamin B6 for the reactions of more than 100 enzymes. Vitamin B6 also plays a role as a cofactor in the body's essential enzymatic reactions. Vitamin B6 is also called pyrodixine which has the chemical formula $C8H12O2n$. Vitamin B6 functions to maintain the balance of P and K elements in cells and is active in the formation of antibodies. Then there is Sucralfate which is used mainly for the treatment of duodenal ulcers and other gastrointestinal conditions, such as Gastroesophageal Reflux Disease (GERD) and stress ulcers. This drug works by forming a protective layer on the surface of ulcers or wounds in the stomach and intestines, thus protecting the area from further damage due to stomach acid, pepsin and bile salts. then proceed with analgesics and paracetamol which can relieve moderate to severe pain. And than Braxidin is used to treat symptoms that arise due to anxiety disorders, diarrhea, irritable bowel syndrome, colitis, stomach ulcers and dysmenorrhea. The drug Braxidin functions as an antispasmodic, which works by relaxing the muscles in the gastrointestinal and urinary tract.
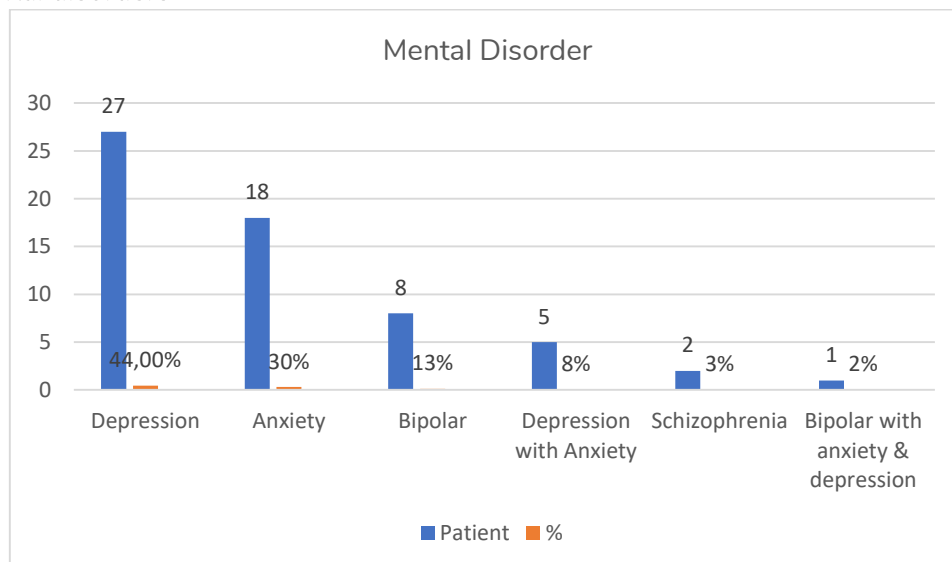
Based mental disorders

Figure 2. Frequency Distribution Based on Mental Disorders

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Many patients suffer from depression because it is a complex disorder, involving various risk factors and causes. Furthermore, depression is related to a bad lifestyle and various social challenges. Considering the negative impact of depression on adolescents, identifying risk factors for depression in adolescents is important. Risk factors associated with increased depression; namely changes in mood or mood experienced by teenagers, competitive dynamics in teenage relationships which carry the risk of bullying or rejection, academic and social pressure, high levels of risky behavior, and increased stress related to changes in various dynamics and uncertainties in life. Meanwhile, psychological factors that cause depression are thought patterns such as negative views of oneself or situations, self-consciousness, inability to cope, emotional dependence, pressure from peers or the environment, low levels of self-esteem and stress caused by depression. by academics. Apart from individual psychological factors, depression can also be influenced by biomedical factors and psychosocial factors. Biomedical factors include gender differences that influence hormonal conditions, a history of chronic diseases such as asthma, diabetes or heart disease, as well as the role of genetic predisposition from parents or family. Psychosocial factors include experiences of bullying, both physical and verbal, experiences of sexual violence, experiencing negative events such as losing a loved one, difficulties in having a positive relationship with parents, the amount of pocket money and personal financial assessments of teenagers, as well as the influence of the amount close friend (Annisa Axelta, 2022).
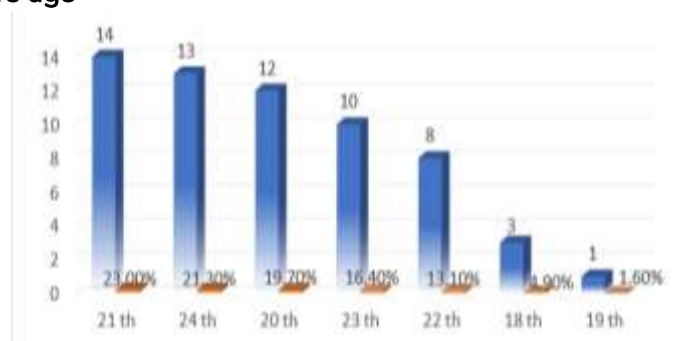
Based on the patient's age

Figure 3. Frequency Distribution Based on Patient Age

There are many teenage patients with mental disorders because adolescence is known as a period full of emotional dynamics, where teenagers' moods can change quickly. Frequent mood swings in teenagers are usually a response to stress, such as homework, school demands, or interactions at home. However, these rapid mood changes do not necessarily indicate a psychological disorder. This can be part of the normal process of emotional development in adolescents. At this stage, teenagers also experience major changes in self-understanding or self-awareness. They begin to notice and think about how others see them, which often makes them more sensitive to comments or judgments from others. Adolescents tend to assume that others notice and judge them with the same intensity as they judge themselves. This phenomenon is known as an imaginary audience, where teenagers feel as if they are always the center of attention. As a result, they become very focused on self-image

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and how they are viewed by others. When self-image does not match expectations, this can trigger feelings of insecurity and emotional vulnerability. Therefore, it is important for teenagers to get support in managing their self-perception and social interactions, so that they can develop a healthy and stable sense of self-esteem amidst the changes they experience. Factors that influence mental health in adolescents are authoritarian parenting patterns, permissive parenting patterns and peer influence which can trigger mental health problems in adolescents and gratitude can also affects adolescent mental health and positive self-functioning (Rahmawaty et al., 2022).
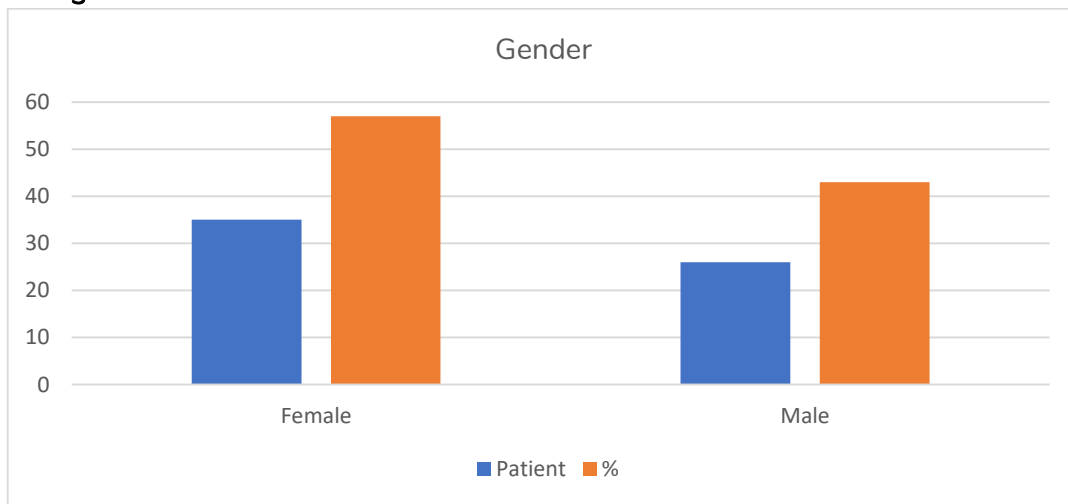
Based on gender

Figure 4. Frequency Distribution Based on Gender

The large number of female mental disorder patients is due to the transitional period of adolescence marked by physical, biological and psychological changes. In women, psychological changes are known to be more sensitive than all things that will become a burden, this is different from men. There are biological reasons in women, namely changes in hormone levels, such as estrogen and progesterone can affect the part of the nervous system that is related to mood disorders, changes in hormone levels usually occur during menstruation, pregnancy, childbirth, and menopause. Furthermore, socio-cultural reasons, women are generally socialized to be able to care for and educate, and be sensitive to the opinions of others, this makes women vulnerable to defining themselves through the opinions of others so that it affects their mental health (Prayitno & Tarigan, 2022).

CONCLUSION

Based on the pattern of drug prescription, the use of the Antidepressant drug class is higher than other psychopharmaceutical drug classes, patients receive several types of drugs included in the Antidepressant drug class and a combination of drugs other than the Psychopharmaceutical drug class. The high use of Antidepressant drugs is due to the greater number of patients with Depression disorders. Based on Mental Disorders, patients with Depression disorders are higher than other mental disorders, namely 44.3% because

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Depression is a complex disorder, so it involves various risk factors and causes. The highest age percentage is at the age of 21 years, namely 23%, this is because adolescence is full of turmoil, during this period mood can change very quickly. Based on gender, women experience more mental disorders, namely 57.3%. In women, psychological changes are known to be more sensitive to all things that will become a burden, this is different from men.

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