

FACTORS INFLUENCING MEDICATION ADHERENCE AMONG INDIVIDUALS WITH MENTAL DISORDERS IN THE SERVICE AREA OF THE MEDAN DENAI COMMUNITY HEALTH CENTER

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ABSTRACT

This study aims to analyze the factors influencing medication adherence in patients with mental disorders in the Medan Denai Community Health Center (Puskesmas Medan Denai). This study employed a quantitative analytical survey design. The study sample consisted of 100 respondents selected using a simple random sampling technique. Data were collected through a questionnaire measuring variables such as family support, psychoeducation, economic status, and support from healthcare professionals, as well as medication adherence. Statistical tests used to analyze the data were the chi-square test and logistic regression. These findings indicated that family support, psychoeducation, economic status, and assistance from healthcare professionals significantly impacted medication adherence ($p<0.05$), with economic status being the most influential factor, followed by support from healthcare professionals and family support. The implications of these findings highlight the importance of family and healthcare professional support in improving medication adherence. Additionally, increasing access to psychoeducational services is essential for enhancing adherence among patients with mental disorders at the Medan Denai Community Health Center.

Keywords: Medication Adherence, People with Mental Disorders, Family Support, Economic Status, Health Worker Support, Medan Denai Health Center

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INTRODUCTION

Health is a state of physical, mental, and social well-being that enables a person to live productively, both socially and economically. Health is an investment in improving the quality of human resources, thus implying that health must be addressed holistically, with mental health being a crucial component (Health., 2022). Health development aims to improve awareness, ability, and willingness to live healthily for the entire community, which is committed to achieving the highest possible standard of living. The community is expected to actively participate so that they are not merely targets but can also become implementers of mental health development. This is in line with the vision of the Ministry of Health of the Republic of Indonesia, namely an independent community for healthy living, meaning a community that is aware of and able to recognize and address mental health problems that hinder individuals from achieving optimal well-being; good, which is caused by disease, including health problems resulting from disasters, the environment, and behavior that does not support healthy living, including mental health problems (Hendrawati, 2018).

The community's involvement is vital in mental health development, as outlined by the Ministry of Health of the Republic of Indonesia, which envisions a society capable of addressing and managing mental health problems independently. This aligns with the vision of mental health care, which focuses on not just treatment, but also prevention, education, and the facilitation of healthy coping mechanisms within the family and community setting.

Mental disorders are almost universally spread throughout the world, including in Southeast Asia. According to the World Health Organization (WHO), in 2019, more than 300 million people worldwide experienced depression, more than 60 million suffered from bipolar disorder, and 23 million experienced serious mental health problems such as schizophrenia and other psychoses. Regarding the number of mental disorders in Indonesia, the prevalence of mental disorders, which there is in Indonesia, reaches 13% and is projected to increase to 25% in 2030 (WHO, 2019). Indonesia has the highest prevalence of schizophrenia cases in 2030 and 2019 at the Southeast Asian level, followed by Vietnam, the Philippines, Thailand, Myanmar, Malaysia, Cambodia, and finally East Timor. An epidemiological study in 2018 showed that the prevalence of schizophrenia in Indonesia was 3% to 11%, a 10-fold increase from 0.3% to 1% in the year 2013, and it usually happens between ages 18 and 45 years (Sari, 2023).

Based on the 2018 Basic Health Research (Riskesdas), 19 million people aged 15 and over experienced mental and emotional disorders. The 2022 Indonesia National Adolescent Mental Health Survey also revealed that one in three Indonesian teenagers experienced mental health problems. In Kulon Progo, in 2023, the number of people with severe mental disorders reached 1,518, with approximately 54.8% of males and 45.2% of females. According to data from the North Sumatra Provincial Health Office, the year 2023 recorded 18,514 people reported with disturbed mental health. Sufferer This consists of 13 diagnoses of mental disorders, consisting of anxiety disorders, depressive disorders, substance use disorders, drug abuse disorder, child development disorders and teenage psychotic disorders, acute schizophrenia, somatoform disorders, insomnia, suicide attempts, mental retardation, personality and behavioral disorders, and dementia.

According to recapitulation data from the Medan City Health Service, the number of people with mental disorders in the Community Health Centers throughout Medan City in 2023 was 3,301 cases. This data shows the number of people with mental disorders in Medan City is still relatively high, but the achievement service is still low at 64.8%. The figure achieved the Not Yet in Accordance with Target Plan Strategy (Traditional Plan) for the years 2021-2025, which is

100%. The number of achievements in service to persons with disturbances of the soul, which is still low, indicates that mental disorders are a serious illness due to the increasing number.

Based on a preliminary study conducted by researchers at the Medan Denai Community Health Center, the prevalence of people suffering from disturbances of the soul in 2022 was 22 people, in 2023 as many as 36 people, and in 2024 as many as 54 people. The initial survey conducted by researchers on June 4, 2024, at the Medan Denai Health Center, which conducted interviews with 10 patients and families, with client responses and family capabilities in family members with mental disorders, namely 7 family members, said there were still patient responses with cognitive behavior (angry, nagging, swearing, and speech disorders), affective (easily offended, resentful, and liking to blame), physiological (clenched hands and rigid body), and behavior that attacks others and damages the environment, and the family said he couldn't yet. The family's approach to caring for the patient at home, due to their inability to do so, was to simply let the patient take their medication whenever they wanted. Meanwhile, three family members cared for the patient at home by encouraging the patient to do activities as desired and ensuring that they took their medication and finished it.

Mental disorders can be caused by previous traumatic experiences and biological factors (genetic factors, disorders of brain structure and function, neurotransmitters), educational factors, coping factors, psychosocial stressors, religious understanding and beliefs. In general, the classification of mental disorders is divided into two parts. That is disturbance of a heavy soul and disturbance of a light soul. Worry, depression, and psychosis are mild mental disorders, while schizophrenia is a severe mental disorder. Medication adherence usually refers to whether patients take their medications as prescribed and also whether they continue to take the prescribed medications. Non-adherence to medication is a growing concern for physicians, healthcare systems, and service health and stakeholders interested in others (Ahmad, 2021). Study show from 63 patient schizophrenia exists 54% patient own medication adherence drink drug low, 34.9% with medication adherence currently And 11.1% with high medication adherence (Zhengchao, 2020). In addition, Tham's research in Singapore showed that out of 92 schizophrenia patients, it was found that 58.7% of patients own medication adherence drinks drugs, which is low; 32.6% have current medication adherence, and 8.6% of patients have high medication adherence (Tham, 2018). Good family support is very helpful in healing people with mental disorders. Feelings of shame, burden, and no care for sufferers during this still become the main factors in the relapse of the patient's disturbed soul. The number of sufferers of mental disorders from year to year increases a lot, caused by a lack of family support.

However, medication adherence in people with mental disorders is often problematic. Research shows that non-adherence to medication can lead to increased rates of relapse and rehospitalization (Ahmad, 2021). Various factors influence medication adherence, including family support, economic status, psychoeducation, and support from healthcare professionals (Kemenkes, 2019; Zhengchao, 2020). Although numerous previous studies have addressed these factors, there remains a gap in understanding the specific factors influencing them in the Medan Denai Community Health Center context. Most previous studies have focused on individual or psychological factors without comprehensively considering the influence of social and economic factors within the local community.

This study aims to address this gap by analyzing in-depth the factors influencing medication adherence among people with mental disorders in the Medan Denai Community Health Center (Puskesmas). The uniqueness of this study lies in the integration of several social factors, such as family support, economic status, and support from healthcare professionals, into the analysis of medication adherence. This study also discusses the implications of these

findings for improving the quality of mental health services at the Medan Denai Community Health Center, an area largely unexplored in previous literature.

With this approach, this study aims not only to understand medication adherence levels but also to provide clearer insights into how social and economic factors interact to influence treatment outcomes in people with mental disorders. Therefore, this research is expected to significantly contribute to the development of mental health policies at the community level.

METHOD

This study employed a quantitative analytical survey design to analyze factors influencing medication adherence among people with mental disorders in the Medan Denai Community Health Center (Puskesmas) area (Rukminingsih, 2020). The population in this study was all people with mental disorders registered at the Medan Denai Community Health Center in 2024. The sample was selected using a simple random sampling technique, with a sample size of 100 respondents. The sample size was determined using the Slovin formula to ensure sufficient data representativeness for statistical analysis. The justification for this sample size was based on the need for multivariate analysis, where a minimum sample of 100 respondents was considered sufficient to achieve the required statistical power, in accordance with quantitative research guidelines for logistic regression.

The instrument used in this study was a two-part questionnaire. The first part collected respondents' demographic data, while the second part measured the independent variables (family support, psychoeducation, economic status, support from healthcare professionals) and the dependent variable (medication adherence). The validity of the instrument was tested through content validity by seeking the opinion of mental health experts to assess the appropriateness of the questionnaire items. Furthermore, the instrument's reliability was tested using Cronbach's Alpha, which yielded a value above 0.7, indicating its reliability.

This study has received ethical approval from the Research Ethics Committee at Sari Mutiara University, Medan. Prior to data collection, all respondents were provided with an explanation of the study's objectives and procedures. They were asked to sign an informed consent form confirming their understanding of their rights, including data confidentiality and the right to withdraw from the study at any time without consequence.

Data were collected through questionnaires distributed to respondents at the Medan Denai Community Health Center with the assistance of local health workers. Data collection took place between January and March 2024. The questionnaires were completed by respondents with minimal assistance from the researcher to ensure proper understanding of each question. The collected data were analyzed using SPSS version 25 statistical software. The statistical test used for bivariate analysis was the chi-square test, while for multivariate analysis, logistic regression was used. Multivariate testing was conducted to determine the effect of several independent variables on medication adherence in people with mental disorders, taking into account relevant control variables. This analysis aims to identify factors that have a significant contribution to medication adherence.

RESULT

1. Description Location Study

Geographically, the Medan Denai Community Health Center is strategically located at Jalan Jermal 15 No. 6, Medan Tenggara Subdistrict, easily accessible from the main

road, Jl. Panglima Denai. The health center was established on October 23rd, 1975. It was inaugurated on 19 May 1976 by Governor North Sumatra, as center public health under the auspices of the Medan City Health Office. The Medan Denai Health Center UPT's working area includes a total of 329.5 ha, covering part of the Medan Denai Subdistrict, which is Ward Denai (120.5 ha with 9 neighborhoods) and Medan Tenggara Village (209 ha with 11 neighborhoods). The boundaries of this Community Health Center's working area are Tegal Sari Mandala II Village to the north, Amplas Village to the south, Deli Serdang Regency to the east, and Binjai Village to the west. This working area has a population of 39,222 people. (20,104 men and 19,118 women) with 10,999 households. Ward Medan Denai has the largest land area and the largest population.

2. Univariate Analysis

Univariate Analysis describes the characteristics of respondents and variables study. The majority of respondents stated they were adherent to medication, received support from family, accepted psychoeducation, had a low economic status, and received support from health officers. For more details, following is a table that summarizes the frequency distribution of research variables.

Table 1. Frequency Distribution of Medication Medication adherence, Family Support, Psychoeducation, Economic Status and Support from Health Workers

Variable	Frequency	Percentage
Medication Medication adherence		
Compliant	27	50,9
Non-Compliant	26	49,1
Family Support		
Available	29	54,7
None	24	45,3
Psychoeducation		
Provided	29	54,7
Not Provided	24	45,3
Economic Status		
Low	35	66,0
High	18	34,0
Healthcare Support		
Available	29	54,7
None	24	45,3
Total	53	100

Based on the table above, it can be seen that medication adherence with taking medication in patients at the Medan Community Health Center Denai is high, the majority of respondents say they are obedient, the majority support family patients with mental disorders, psychoeducation of ODGJ patients is said to be given, the economic status of the majority of respondents is low, and the majority of respondents reported receiving support from health workers.

3. Analysis Bivariate

Bivariate analysis was conducted to determine the influence of each independent variable on medication adherence. drink drugs. People with mental disorders. The results

show there is significant influence between family support ($p = 0.000$, OR = 4), psychoeducation ($p = 0.000$, OR = 24), economic status ($p = 0.026$, OR = 2.8), and support from health workers ($p = 0.001$, OR = 6.6) and medication adherence among people with mental disorders. This indicates that respondents who received family support, psychoeducation, had higher economic status, and received support from health workers tended to be more compliant in taking their medication. The following is a summary of the bivariate analysis results in table form.

Table 2. Bivariate Analysis Results

Independent Variable	P-value	OR	95% CI	Interpretation
Family Support	0,000	4	1,015-15,763	Respondents who received family support were four times more likely to be compliant with their medication
Psychoeducation	0,000	24	4,071-141,497	Respondents who received psychoeducation were 24 times more likely to be compliant with their medication.
Economy Status	0,026	2,8	0,784-9,994	Respondents with higher socioeconomic status were 2.8 times more likely to be compliant with their medication
Healthcare Support	0,001	6,6	1,615-26,977	Respondents who received support from healthcare workers were 6.6 times more likely to be compliant with their medication.

4. Analysis Multivariate

Multivariate analysis was conducted using logistic regression to determine factors influencing medication adherence in patients with mental disorders at the Medan Denai Community Health Center. The results showed that family support, economic status, and support from healthcare professionals significantly influenced medication adherence ($p<0.05$). The odds ratio (OR) for economic status was the highest at 49.153, suggesting that respondents with high economic status were nearly 50 times more likely to adhere to medication, although the confidence interval (CI) of 1.015 to 15.763 indicates uncertainty in this estimate. This indicates that although the high odds ratio appears significant, the limited sample size (100 respondents) may influence this estimate, and the potential for overestimation should be acknowledged. Therefore, although these results are interesting, caution should be exercised in drawing definitive conclusions, and further analyses with larger sample sizes are needed to confirm the reliability of these findings.

Table 3. Multivariate Analysis Results

Variables Independent	P-value	OR
Status Economy	0.002	49,153
Support Officer Health	0.016	18,533
Support Family	0.026	15,090

Table 3 shows that after conducting a logistic regression test, it can be seen that the variable that is influential with medication adherence with taking medication for people with mental disorders in the Region Work Community Health Center Medan Denai is support from family, status of economy, and support from the health officer ($p < 0.05$).

Table 4. Table Coefficient Determinant

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	32,416	0.418	0.608

Source Data: Processed Data SPSS version 25.0

The Nagelkerke R-square value indicates the coefficient of determination. The Nagelkerke R-square value was 0.608, indicating that family support, psychoeducation, economic status, and support from healthcare workers influenced medication adherence in people with mental disorders (ODGJ) by 60.8%. This indicates that 39.2% of patients had medication adherence. drug influenced by other factors. From the results of the regression, one can draw the conclusion of equality: Medication adherence with taking medication for people with mental disorders = $-5,861 + 2,714$ family support + $3,895$ economic status + $2,920$ health worker support.

DISCUSSION

Results of the study show that family support has a significant influence on medication adherence in people with mental disorders. Respondents who get family support tend to be more adherent to medication compared to those who did not receive support. This is in line with the theory that states that social support, including family support, is an important factor in increasing medication adherence with treatment. Family, which gives emotional support, information, and practical help, helps patients feel more motivated and able to follow their treatment plan. Lee et al.'s research underscores the important role of the family in disease management and mental (Lee, Z., 2023).

In line with, adaptive family support can reduce stigma, increase access to care, and facilitate adherence to treatment regimens (Anggraini et al., 2024). Conversely, a lack of family support can lead to social isolation, feelings of helplessness, and decreased adherence. These findings strengthen existing evidence that family-involved interventions can be an effective strategy for improving treatment outcomes in people with mental health problems (Suprabowo & Isnawati, 2025).

The results of this study are in line with research conducted by Ichda, which stated that there is support family from party family proven influence level medication adherence patient schizophrenia (Ichda, 2019). Treatment adherence is related to the high and low rates of relapse and rehospitalization in schizophrenia patients. Relapse in schizophrenia patients is related to the burden placed on the family. High levels of family support are expected to reduce the rates of non-adherence to treatment, relapse, and rehospitalization in schizophrenia patients. patient as well as can reduce burden family patient (Jones, Y., 2025).

Psychoeducation has proven to be an important factor in improving medication adherence in the mental health population in this study. Respondents who received psychoeducation were significantly more adherent to medication compared to those who did not receive this intervention. This is consistent with previous research showing that increasing a patient's knowledge about their disease, the benefits of treatment, and potential side effects

can increase medication adherence (Administration., 2023). Moreover, by providing patients with clear and understandable information, they are more likely to make informed decisions about their treatment and feel more confident in following their prescribed regimen.

Findings on the status of the economy influence medication adherence with taking medication for people with mental disorders in line with proof that some suggest that poverty and social inequality can be significant barriers to accessing mental health maintenance. Therefore, Individual with status economy low Possible to face challenges such as lack of transportation, medical costs, and lack of health insurance, all of which can contribute to bad medication adherence. Research by Chen highlights the need for intervention to overcome underlying social and economic factors that influence mental health and treatment adherence. Programs that provide financial assistance, transportation, and housing support can help reduce disparities in access to care and improve outcomes for people with mental health issues from low-income backgrounds (Sugitayasa et al., 2024).

Support from healthcare workers is another crucial factor in improving medication adherence. In line with the findings, a strong therapeutic relationship between patients and healthcare providers, characterized by trust, effective communication, and empathy, can enhance adherence. Healthcare workers can give information about treatment, monitor side effects, and overcome problems that may arise. A recent systematic review by Jones found that interventions involving healthcare workers, such as case management, adherence consultations, and medication reminders, were effective in improving medication adherence in people with mental disorders (Jones, Y., 2025). Moreover, this emphasizes the importance of a person-centered care approach, on patient which meets individual patient needs and build connection Which strong between patient and their service providers.

Overall, the findings of this study provide a better understanding of how social, economic, and psychosocial factors interrelate with each other to influence medication adherence in patients with mental disorders. Family support, psychosocial education, economic status, and support from healthcare professionals have been shown to be interrelated in improving medication adherence. Practically, this study provides valuable insights into the factors influencing medication adherence in patients with mental disorders. These findings can be used by healthcare practitioners to design more comprehensive interventions, including family support, psychosocial education, and increased access to healthcare services for patients with low socioeconomic status. In the context of psychiatric nursing, this study also demonstrates the importance of training nurses in maintaining a positive therapeutic relationship with patients and involving families in patient care.

Theoretically, this study strengthens the theory on the role of social, economic, and educational support in improving medication adherence in individuals with mental disorders. This study also adds to the literature on the interaction between socioeconomic and psychosocial factors in the context of mental disorder treatment and provides new insights into the role of family and healthcare professional support in influencing treatment outcomes.

CONCLUSION

This study, conducted at the Medan Denai Community Health Center in 2024, aimed to analyze factors influencing medication adherence in individuals with mental disorders. The results showed that family support, economic status, and support from healthcare professionals significantly influenced medication adherence, with economic status being the most influential factor. These findings emphasize the importance of social support from family and healthcare professionals in improving medication adherence, as well as the need for greater attention to economic factors in designing effective interventions for patients with mental disorders.

RECOMMENDATION

Practical Recommendations

To improve treatment adherence in patients with mental disorders, social support from family and community must be strengthened. Intervention programs that actively involve families, such as family education and emotional support, can help patients feel more supported during their treatment. Thus, families play a vital role in the patient's recovery process. Furthermore, developing structured aftercare programs, such as home visits and support groups, is crucial to ensure patients do not feel neglected after hospital discharge. These programs will help patients feel supported throughout their treatment journey, which can improve adherence. Furthermore, training for healthcare workers is also crucial. Healthcare workers need to be trained to build better therapeutic relationships with patients, focusing on empathetic communication and providing clear information. This approach will increase patient trust in the care provided and encourage them to be more diligent in following their treatment programs.

Policy Recommendations

From a policy perspective, increasing resources at Community Health Centers (Puskesmas) is crucial to optimizing the quality of mental health services. This includes increasing the number of trained healthcare workers and providing adequate supporting facilities to more effectively monitor patient adherence to treatment. Furthermore, the government and relevant institutions need to provide financial support programs for patients from low socioeconomic backgrounds. Transportation assistance programs and subsidized treatment costs can reduce barriers to accessing mental health services, especially for those facing financial hardship. These policies will enable patients from all socioeconomic backgrounds to gain easier and more equitable access to the mental health services they need.

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