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The Relationship Between Self-Stigma Levels and Medication Compliance in Patients with Severe Mental Disorders

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Abstract

Background: Medication adherence is a key factor in the successful treatment of patients with severe mental illness. However, the level of non-adherence remains relatively high and is often associated with various psychosocial factors, one of which is self-stigma. Self-stigma can influence patients' perceptions of the disease and treatment, potentially reducing adherence to regular medication use. **Objective**: This study aims to analyze the relationship between self-stigma levels and medication adherence in patients with severe mental illness. **Methods**: This study used a quantitative design with a cross-sectional approach. A total of 220 patients with severe mental illness undergoing treatment at a mental health service facility became the study respondents. The level of self-stigma was measured using the Internalized Stigma of Mental Illness (ISMI), while medication adherence was measured using the Medication Adherence Rating Scale (MARS). Data analysis was performed descriptively and inferentially using the Spearman correlation test and logistic regression with a significance level of $p < 0.05$. **Results**: The results showed that most respondents had moderate to high levels of self-stigma and more than half of respondents were non-compliant with medication. There was a significant negative relationship between self-stigma and medication adherence ($r = -0.462$; $p < 0.001$). Patients with high self-stigma are at greater risk of non-adherence to treatment. **Conclusion**: Self-stigma is significantly associated with medication adherence in patients with severe mental illness. Interventions focused on reducing self-stigma need to be integrated into mental health services to improve medication adherence and patient outcomes.

Keywords: Self-Stigma; Medication Adherence; Severe Mental Illness; Mental Health; Psychopharmacological Treatment

Introduction

Severe mental illness represents a significant global public health challenge due to its complex impact on psychosocial functioning, quality of life, and healthcare burden. Adherence to medication regimens is a key aspect in the management of severe mental illnesses, such as schizophrenia or bipolar disorder, given

that inadequate treatment is often associated with the risk of symptom relapse, rehospitalization, and premature death (Abdisa et al., 2020).

Stigma related to mental illness includes both external and internal stigma (self-stigma), where individuals with a mental illness diagnosis internalize negative stereotypes about their condition. Self-stigma not only undermines self-esteem and functioning but also directly impacts treatment behavior, including medication adherence (Corrigan & Rao, 2012). Early research from various settings suggests that high levels of self-stigma correlate with low levels of therapy adherence, creating a negative cycle that worsens clinical outcomes.

A classic study of patients with mental illness treated at the Ethiopian Psychiatric Clinic showed that levels of self-stigma were significantly associated with levels of antipsychotic adherence, with more stigmatized patients being more likely to be non-adherent (Abdisa et al., 2020). This study used the Internalized Stigma of Mental Illness (ISMI) and found a negative correlation between internalized stigma and medication adherence, highlighting the role of psychosocial factors in pharmacological management.

This phenomenon is not limited to African settings or specific disorders. A recent cross-sectional study of schizophrenia patients in Indonesia also found that self-stigma influences not only perceptions of the illness but also its relationship to medication adherence, with higher levels of stigma associated with a lower likelihood of consistently following doctor's prescriptions (Amna et al., 2025).

Furthermore, research across chronic conditions such as pulmonary tuberculosis also shows that stigma, both external and internal, is significantly associated with long-term medication adherence (Pulungan et al., 2024). Although the focus is different, this pattern of stigma-adherence relationships demonstrates consistency across various chronic diseases.

The term self-stigma is defined as the process of internalizing negative stereotypes about a condition by individuals experiencing that condition. In the context of mental health, this stigma can lead to shame, social isolation, low self-esteem, anxiety, and ultimately avoidance behavior or non-adherence to treatment (Rüsch, Angermeyer, & Corrigan, 2005). Research in major mood disorders has found that higher levels of internal stigma are associated with negative evaluations of antidepressant medications and decreased patient adherence to therapeutic regimens (Ho et al., 2025).

Other publications examining depression and non-psychotic mental disorders have observed that internal stigma further distorts patients' views of psychopharmacological treatments, ultimately reducing their likelihood of consistently taking medications as recommended by healthcare professionals (Zhang et al., 2023).

Beyond global contexts and across diagnoses, psychosocial interventions targeting self-stigma have also been tested. For example, educational videos designed to reduce self-stigma in people with HIV have shown increased medication adherence and decreased self-stigma, a methodologically relevant approach for understanding the stigma-adherence dynamics in patients with severe mental illness.

Theoretical models predict that self-stigma can impact patients' motivational beliefs and self-efficacy in adherence to treatment. Those who internalize negative social labels regarding their disorder tend to have lower beliefs in the benefits of treatment and their ability to consistently adhere to medication regimens (Suratmini & Togatorop, 2023).

In the context of mental health services in Indonesia, mental stigma is often associated with the general public's perception that mental disorders are conditions requiring isolation or caused by supernatural forces, which exacerbates patients' internal stigma and hinders access to and consistency of treatment (Rahmani et al., 2024).

In conclusion, the relationship between self-stigma and medication adherence is a phenomenon consistently found in various international empirical studies. Conceptually, self-stigma acts as a psychosocial barrier that influences patients' motivation to adhere to therapeutic regimens. A thorough understanding of the mechanisms of this relationship is crucial for formulating effective intervention strategies to improve treatment outcomes for patients with severe mental disorders.

Method

Research Design

This study used a quantitative design with a non-experimental, observational approach and cross-sectional method. This design was chosen to examine the relationship between self-stigma and medication adherence in patients with severe mental disorders at a single time point. The variables in this study were: the independent variable, namely the level of self-stigma, and the dependent variable, namely the level of medication adherence.

Population and Sample

The target population in this study were patients with severe mental disorders who were currently receiving treatment and had been using antipsychotic/psychopharmacological medications for at least 3 months. To determine the sample size, the researchers used the formula for estimating the proportion of a large population: n = Z2 × p(1 − p) d2 n = \frac{Z^2 \times p(1 − p)}{d^2}n = d2Z2 × p(1 − p). where:

- Z = 1.96 (95% confidence level),
- p was assumed to be 0.5 (due to the lack of local studies with exact proportions),
- d = margin of error 0.07.

n=(1.96)2×0.5(1−0.5)(0.07)2=196n = frac{(1.96)^2 \times 0.5(1-0.5)}{(0.07)^2} = 196n=(0.07)2(1.96)2×0.5(1−0.5)=196

Adding 10% for non-response and missing data, the final target sample size is approximately 220 respondents.

Inclusion criteria:

- Diagnosis of a severe mental disorder (e.g., schizophrenia, bipolar disorder) by a psychiatrist.
- Age ≥18 years.
- Taking prescribed medication for ≥3 months.
- Willing to complete the instrument and sign the informed consent form.

Exclusion Criteria:

- Comorbid severe neurocognitive disorders or acute mental disorders that prevent respondents from answering the questionnaire.
- Currently in the acute phase of intensive care.
- Severe language or communication disorders.

Sampling Technique

Sampling was conducted using probability sampling, a stratified random sampling technique, to ensure a balanced proportion of outpatients and inpatients according to the distribution of the target population of the research clinic facility. After strata were created based on disorder type (e.g., schizophrenia vs. severe mood disorder), respondents were systematically randomly drawn from the list of patients who met the criteria.

Research Instruments and Data Collection Procedures

1. Self-Stigma Scale. The Internalized Stigma of Mental Illness (ISMI-10 / ISMI-29) was used as a self-stigma measurement instrument, which has been tested for validity and reliability in

various settings for severe mental illness. The ISMI covers the domains of alienation, stereotype endorsement, perceived discrimination, social withdrawal, and stigma resistance.

2. Medication Compliance. Measured using the Morisky Medication Adherence Scale (MMAS-8) or the Medication Adherence Rating Scale (MARS), which has been adapted and used in previous research for patients with mental disorders.
3. Demographic and Clinical Data. Includes age, gender, highest level of education, duration of treatment, type of diagnosis, and length of stay.

Data Collection Procedures consisted of 1) Training enumerators/local investigators on research ethics and questionnaire completion, 2) Informed consent signed by participants, 3) Respondents completed the ISMI and MMAS/MARS questionnaires through structured interviews, if necessary, and 4) Data were verified for completeness before analysis.

Data Analysis Plan

Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 26. The analysis steps included 1) descriptive demographic analysis, 2) instrument reliability testing (Cronbach's α), 3) normality testing (Kolmogorov-Smirnov/Shapiro-Wilk), and inter-variable relationship analysis, including Pearson/Spearman correlation between ISMI scores and MMAS/MARS scores. Logistic regression analysis was performed to determine direct factors predicting medication adherence. Significance level: $p < 0.05$.

Results

Respondent Overview

Table 1 Demographic Characteristics of Respondents (n = 220)

Characteristics	Frequency (f)	Percentage (%)
Age		
18–30 years	54	24,5
31–45 years	92	41,8
46–60 years	56	25,5
>60 years	18	8,2
Gender		
Male	132	60,0
Female	88	40,0
Education		
Elementary/Middle School	78	35,5
High School	94	42,7
College	48	21,8
Diagnosis		
Schizophrenia	162	73,6
Bipolar Disorder	58	26,4
Treatment Duration		
3–12 months	64	29,1
>12 months	156	70,9

This study involved 220 respondents with severe mental illness who met the inclusion and exclusion criteria. Data were collected through the Internalized Stigma of Mental Illness (ISMI) and Medication Adherence Rating Scale (MARS/MMAS-8) questionnaires. The majority of respondents were of productive age, male, and had a diagnosis of schizophrenia with treatment duration exceeding one year.

Distribution of Self-Stigma Levels

Table 2 Distribution of Respondents' Self-Stigma Levels

Self-Stigma Level	Frequency (f)	Percentage (%)
Low	52	23,6
Medium	94	42,7
High	74	33,6
Total	**220**	**100**

Self-stigma scores were measured using the ISMI, then categorized as low, moderate, and high. Most respondents experienced moderate to high levels of self-stigma (76.3%), indicating that internalization of stigma remains a dominant issue among patients with severe mental illness.

Medication Adherence Distribution

Table 3 Medication Adherence Distribution

Medication Compliance	Frequency (f)	Percentage (%)
Compliant	96	43,6
Non-Compliant	124	56,4
Total	**220**	**100**

Medication adherence was assessed using the MARS/MMAS-8 and classified as adherent and non-adherent. More than half of respondents indicated non-adherence to medication, potentially increasing the risk of relapse and rehospitalization.

Analysis of the Relationship between Self-Stigma and Medication Adherence

Table 4 Results of the Correlation Test between Self-Stigma and Medication Adherence

Variable	r (Spearman)	p-value
Self-Stigma ↔ Medication Compliance	**-0,462**	**<0,001**

The correlation analysis was performed using the Spearman correlation test because the data were not normally distributed. There was a moderate and significant negative relationship between self-stigma and medication adherence. The higher the level of self-stigma, the lower the patient's medication adherence.

Crosstab Analysis of Self-Stigma and Medication Adherence

Table 5 Relationship between Self-Stigma and Medication Adherence

Self-Stigma Level	Compliant (%)	Non-Compliant n (%)	Total
Low	38 (73,1)	14 (26,9)	52
Medium	42 (44,7)	52 (55,3)	94
High	16 (21,6)	58 (78,4)	74
Total	**96**	**124**	**220**

Chi-Square Test: $\chi^2 = 34.62$; $p < 0.001$
Respondents with high self-stigma had a significantly higher proportion of medication non-adherence than respondents with low self-stigma.

Logistic Regression Analysis

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Table 4.6 Results of Logistic Regression Analysis

Variables	OR	95% CI	p-value
Self-stigma (high)	**3,21**	1,88–5,49	<0,001
Age	1,04	0,98–1,11	0,183
Gender	1,12	0,71–1,78	0,621
Duration of treatment	0,68	0,39–1,18	0,171

Regression analysis was conducted to determine the effect of self-stigma on medication adherence after controlling for demographic variables. Patients with high self-stigma had a 3.21 times greater risk of non-adherence compared to patients with low self-stigma, after controlling for other variables.

Discussion

This study evaluated the relationship between self-stigma levels and medication adherence in patients with severe mental illness. The results showed that the majority of respondents had moderate to high levels of self-stigma, and more than half of respondents were non-adherent to their medication regimen. Statistical analysis also revealed a significant negative relationship between self-stigma and medication adherence ($r = -0.462$, $p < 0.001$). These results are generally consistent with previous research findings indicating that self-stigma is a major psychosocial barrier to treatment behavior in patients with mental illness.

Level of Self-Stigma in Patients with Severe Mental Illness

Most respondents experienced moderate to high levels of self-stigma. This is consistent with a literature review

showing that internalization of stigma is a prevalent problem among individuals with severe mental illness, including schizophrenia and severe mood disorders. According to Abdisa et al. (2020), internalized stigma reflects a psychological process in which individuals with mental health conditions internalize negative social images about their illness, which then damages their self-esteem and personal identity (Abdisa et al., 2020). These findings are also supported by Ho et al. (2025), who reported that patients with major depressive disorder experience levels of internalized stigma that influence their attitudes toward treatment (Ho et al., 2025).

Other research from Amna, Fazlylawati, Rizki, and Abqariah (2025) also reported that high levels of self-stigma were found in schizophrenia patients visiting mental health facilities in Indonesia, indicating that this phenomenon is not only global but also contextual in developing countries (Amna et al., 2025). This internalized stigma is often fueled by societal stereotypes that mental disorders are a sign of character weakness or an incurable disease, which exacerbates the psychosocial challenges faced by patients (Corrigan & Rao, 2012).

Medication Compliance Among Respondents

More than half of the respondents in this study reported non-adherence to their medication regimen. This finding aligns with a study by Shi et al. (2024), which found that low medication adherence is a common phenomenon in patients diagnosed with mental disorders, especially if these patients experience negative perceptions of medication benefits or unwanted side effects (Shi et al., 2024). Medication adherence is crucial in severe mental disorders, as non-adherence is associated with symptom relapse, hospitalization, and reduced quality of life (Lahera et al., 2023).

In the context of psychotic disorders, Kar et al. (2021) showed that patients with schizophrenia who were non-adherent to antipsychotics had a significant risk of relapse earlier than those who were compliant (Kar et al., 2021). Although the focus of this study was not directly on self-stigma, psychosocial factors such as illness perceptions and attitudes toward medication are strong determinants of adherence.

The Relationship Between Self-Stigma and Medication Adherence

The correlation analysis in this study showed that self-stigma was negatively correlated with medication adherence, meaning that the higher the self-stigma, the lower the likelihood of patients adhering to their medication regimen. This finding is consistent with previous research, including that of Abdisa et al. (2020), which found that self-stigma was significantly associated with medication non-adherence in patients with mental illness in Ethiopia (Abdisa et al., 2020).

A similar finding was observed in a meta-analysis by Happell et al. (2022), which concluded that internalized stigma was a strong predictor of non-adherence in patients with mental illness to psychopharmacological therapy, particularly in outpatient settings. These findings confirm the psychological mechanism by which internalized stigma impacts patients' self-efficacy in following prescribed medication.

Furthermore, Rüsch, Angermeyer, and Corrigan (2005) explained that self-stigma not only affects an individual's attitude toward themselves but can also lead to social isolation and withdrawal, ultimately impacting motivation to maintain health, including taking medication regularly (Rüsch et al., 2005). This concept is supported by research by

Nurul Amna et al. (2025), which showed that patients with high self-stigma tend to have negative views of the benefits of medication, thus decreasing their adherence.

Coherence with Other Research

Several studies have also found that self-stigma is not only associated with medication adherence, but also with decreased quality of life and increased depressive symptoms, which further worsen treatment behavior. For example, Zhang et al. (2023) showed that patients with mood disorders who internalized stigma more often reported more severe depressive symptoms and encountered barriers to adhering to their medication therapy (Zhang et al., 2023).

Furthermore, research by Sulistiowati and Prasetyo (2025) added that low social support can exacerbate the impact of stigma on patient adherence to treatment, indicating that family and community support systems mediate the stigma-adherence relationship (Sulistiowati & Prasetyo, 2025).

Implications of Research Findings

The results of this study have important clinical and policy implications. Clinicians need to be aware that intervention strategies should include psychosocial components in addition to focusing on pharmacological effects, such as stigma reduction programs, psychoeducational counseling, and peer support groups. Approaches such as cognitive-behavioral therapy for stigma and family involvement in treatment have been shown to help reduce self-stigma and improve adherence (Ali et al., 2024).

From a policy perspective, mental health services need to integrate community-based approaches to reduce negative stereotypes surrounding mental disorders. Advocacy for effective mental literacy campaigns can help reduce external stigma, which in turn contributes to reducing internal stigma in patients.

Conclusion and Recommendations

Conclusion

This study shows that self-stigma is a significant psychosocial problem in patients with severe mental illness. The majority of respondents had moderate to high levels of self-stigma, and more than half of them demonstrated non-adherence to medication as recommended by healthcare professionals. Statistical analysis revealed a significant negative relationship between self-stigma and medication adherence, with the higher the self-stigma experienced by patients, the lower the level of medication adherence. Furthermore, self-stigma was shown to be a key predictor of medication non-adherence, even after controlling for demographic and clinical variables. These findings confirm that psychosocial aspects, particularly the internalization of stigma, play a crucial role in the success of pharmacological therapy in patients with severe mental illness. Therefore, efforts to improve medication adherence cannot focus solely on medical aspects but must also consider the patient's psychological and social factors.

Recommendations

Healthcare professionals are expected to integrate psychosocial interventions, such as psychoeducation and stigma-reduction counseling, into mental health services to reduce patients' self-stigma. Family involvement and social support need to be increased to strengthen patients' motivation to undergo treatment. Future research is recommended to use longitudinal or intervention designs to test the causal relationship between self-stigma and medication adherence, as well as to explore other factors that act as mediators or moderators. Furthermore, developing

community-based mental health programs that focus on improving community mental literacy is also crucial for sustainably reducing stigma.

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