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ORIGINAL ARTICLE

Factors Associated with Non-Adherence to Antipsychotic Medication among Adult Patients with Schizophrenia: A Cross-Sectional Study

OMAR MURTAZA SHEIKH[1], GHULAM SHABIR SHAIKH[2], NAEEM AMJAD[3], ASHFAQ AHMAD[4]
[1]*District Psychiatrist, Department of Psychiatry, DHQ Hospital Haripur.*
[2]*Assistant Professor Psychiatry, Bilawal Medical College, LUMHS Jamshoro*
[3]*Assistant Professor of Psychiatry and Behavioural Sciences, Shahida Islam Medical College, Lodhran.*
[4]*Senior Registrar Psychiatry, Rai Foundation Medical College, Sargodha.*
Correspondence to: Omar Murtaza Sheikh, Email: omspsych@gmail.com

ABSTRACT

Objective: This study aimed to assess the factors associated with non-adherence to antipsychotic medication in adult patients with schizophrenia.

Methods: A total of 135 adult patients diagnosed with schizophrenia were recruited for this study. We conducted structured interviews and analyzed patient records to gather data on demographic characteristics, clinical factors, medication-related variables, and psychosocial factors. A multivariate analysis was performed to identify significant predictors of non-adherence.

Results: The findings revealed that factors such as poor insight into the illness ($p<0.01$), medication side effects ($p<0.05$), and substance abuse ($p<0.05$) were significantly associated with non-adherence. Other contributing factors included socioeconomic factors such as lower income and education ($p<0.05$) and the complexity of the medication regimen ($p<0.05$).

Conclusion: Non-adherence to antipsychotic medication is influenced by a range of factors, including clinical, medication-related, and socioeconomic factors. Addressing these factors through targeted interventions could improve medication adherence and overall patient outcomes.

Keywords: schizophrenia, non-adherence, antipsychotic medication, insight, substance abuse, socioeconomic factors

INTRODUCTION

Schizophrenia is a chronic, severe mental disorder that impacts approximately 1% of the global population. It is characterized by a range of symptoms including delusions, hallucinations, disorganized thinking, and cognitive impairments. Although antipsychotic medications are the cornerstone of treatment for schizophrenia, a substantial number of patients fail to adhere to prescribed medication regimens. Non-adherence to antipsychotic treatment is one of the primary reasons for poor outcomes, including symptom relapse, frequent hospitalizations, and impaired functionality[1,2]. Studies have suggested that adherence to treatment in schizophrenia is critically important not only for symptom control but also for improving the overall quality of life and preventing the progression of the disease[3,4].

Several factors contribute to non-adherence, ranging from the severity of clinical symptoms to medication-related issues, socioeconomic status, and psychosocial factors. Poor insight into the illness is frequently cited as one of the most significant barriers to medication adherence. Many patients with schizophrenia lack awareness of their illness, which reduces their willingness to adhere to prescribed treatments[5,6]. Moreover, substance abuse disorders often co-occur in schizophrenia, further complicating adherence to treatment protocols[7,8].

Medications used to treat schizophrenia, particularly antipsychotics, are known to have side effects that can significantly impact patient adherence. These side effects may include weight gain, sedation, and movement disorders, all of which can discourage continued use of medication[9,10]. Furthermore, the complexity of medication regimens, such as the need for multiple daily doses or frequent changes in treatment, may contribute to poor adherence[11].

Socioeconomic factors, including educational level, income, and employment status, are also important considerations in understanding adherence to antipsychotic medications. Patients with lower education levels and incomes may have limited access to healthcare and a lack of awareness regarding the importance of adhering to prescribed medications[12,13].

This study aims to explore the range of factors that influence medication adherence among adult patients with schizophrenia, with a particular focus on clinical, medication-related, and socioeconomic variables. A thorough understanding of these factors will aid in designing interventions to improve adherence rates, which could ultimately lead to better treatment outcomes and improved quality of life for individuals suffering from this debilitating disorder[14,15].

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METHODS

This cross-sectional study was conducted at Department of Psychiatry, DHQ Hospital Haripur and Bilawal Medical College, LUMHS Jamshoro over a six-month period from March 2023 to August 2023. A total of 135 adult patients with schizophrenia, aged 18-65 years, were recruited. Patients were diagnosed according to the DSM-V criteria for schizophrenia. Inclusion criteria included patients currently prescribed antipsychotic medication, while exclusion criteria included patients with severe cognitive impairment or those unable to provide informed consent.

Data Collection: Data were collected through structured interviews and a review of patient records. A questionnaire was developed to assess patient demographics, clinical factors, medication-related issues, and psychosocial factors. Demographic variables included age, gender, education level, and employment status. Clinical factors included insight into the illness, symptom severity, and history of substance abuse. Medication-related variables included medication side effects, complexity of the medication regimen, and medication type.

Outcome Measure: The primary outcome was medication adherence, measured using the Morisky Medication Adherence Scale (MMAS-8). A score of 6 or below on the MMAS-8 was considered indicative of non-adherence.

Statistical Analysis: Data were analyzed using SPSS version 25. Descriptive statistics were used to summarize demographic and clinical variables. Univariate and multivariate logistic regression analyses were performed to identify significant factors associated with non-adherence. P-values less than 0.05 were considered statistically significant.

RESULTS

Demographics: The sample consisted of 135 patients, with a mean age of 38.5 years (range: 18-65). The majority of the participants were male (65%) and employed (55%). The education level varied, with 40% having completed secondary education, 30% with a university degree, and 30% with no formal education.

Among the 135 participants, 72% (97 patients) had poor insight into their illness. Poor insight was defined as the inability to

recognize the presence of the illness and the need for treatment, which was identified as a significant barrier to adherence. A history of substance abuse was reported by 45% (61 patients) of the sample. The substances most commonly used included alcohol, cannabis, and tobacco. Symptom severity, as assessed by the Positive and Negative Syndrome Scale (PANSS), indicated that 60% (81 patients) had moderate symptoms, 25% (34 patients) had severe symptoms, and 15% (20 patients) had mild symptoms. Higher symptom severity was associated with poorer adherence. Among the participants, 30% (40 patients) reported having at least one comorbid condition, including anxiety, depression, and cardiovascular disease. (Table 2)

Table 1: Demographic Characteristics of the Sample Population

Demographic Characteristic	Frequency (%)
Age (mean)	38.5 years
Gender: Male	88 (65%)
Employment Status: Employed	74 (55%)
Education Level: Secondary	54 (40%)
Education Level: University	40 (30%)
No Formal Education	41 (30%)

Table 2: Clinical Factors

Clinical Factors	Frequency (%)
Poor Insight	97 (72%)
History of Substance Abuse	61 (45%)
Moderate Symptom Severity	81 (60%)
Severe Symptom Severity	34 (25%)
Mild Symptom Severity	20 (15%)
Comorbidities (e.g., Anxiety)	40 30%)

A total of 68% (92 patients) reported experiencing side effects from their antipsychotic medications. The most common side effects included weight gain (43%), sedation (32%), and movement disorders (23%). Medication regimens were deemed complex for 60% (81 patients), with the majority required to take multiple daily doses (47%) or have their medications changed frequently (13%). This complexity was found to be a significant barrier to adherence. The most commonly prescribed antipsychotics in the sample were atypical antipsychotics (70%), while the remaining 30% of patients were prescribed typical antipsychotics. Atypical antipsychotics were more frequently associated with side effects such as weight gain and sedation. 42% (57 patients) reported that the high cost of medication was a barrier to adherence. This was particularly problematic for patients with lower income or those not covered by health insurance. (Table 3)

Table 3: Medication Related Factors

Medication-Related Variables	Frequency (%)
Reported Medication Side Effects	92 (68%)
Weight Gain	58 (43%)
Sedation	43 (32%)
Movement Disorders	31 (23%)
Complex Medication Regimen	81 (60%)
Multiple Daily Doses	63 (47%)
Medication Changes Frequently	17 (13%)
Atypical Antipsychotics	94 (70%)
High Medication Costs	57 (42%)

Table 4: Factors Associated with Non-Adherence

Variable	Odds Ratio (95% CI)	p-value
Poor insight	3.25 (1.47-7.14)	0.002
Substance abuse	2.34 (1.20-4.58)	0.015
Medication side effects	2.47 (1.11-5.52)	0.022
Complex medication regimen	2.12 (1.03-4.34)	0.045
Lower education level	2.04 (1.03-4.09)	0.04
Lower income	1.85 (1.04-3.31)	0.035

The multivariate logistic regression analysis identified several significant factors associated with non-adherence. Poor insight into the illness, substance abuse, medication side effects, and the complexity of the medication regimen were significantly associated with non-adherence ($p<0.05$). Additionally, lower education levels and income were associated with higher rates of non-adherence. (Table 4)

DISCUSSION

The results of this study highlight several key factors associated with non-adherence to antipsychotic medication in adult patients with schizophrenia. One of the most significant findings is the role of poor insight into the illness. Previous studies have shown that lack of awareness about the need for treatment is a major barrier to adherence[12,13]. Patients who do not recognize the severity of their condition are less likely to adhere to prescribed medication regimens[14].

Substance abuse was also a significant predictor of non-adherence, consistent with previous literature[15]. Patients with comorbid substance use disorders are at greater risk of neglecting their medication regimen, as substance use may be prioritized over treatment adherence[16].

Medication side effects were another important factor contributing to non-adherence. These findings align with previous research indicating that adverse effects such as sedation, weight gain, and movement disorders can lead to discontinuation of treatment[17,18].

The complexity of the medication regimen was also a significant predictor, suggesting that simpler, more convenient treatment options could improve adherence. Long-acting injectable antipsychotics may be an effective solution for patients struggling with complex medication regimens[19].

Finally, socioeconomic factors such as education and income were associated with non-adherence, which supports earlier findings that lower socioeconomic status is a risk factor for poor medication adherence[20,21].

CONCLUSION

This study demonstrates that non-adherence to antipsychotic medication in schizophrenia is influenced by a combination of clinical, medication-related, and socioeconomic factors. Interventions targeting these factors, such as psychoeducation, simplifying medication regimens, and addressing substance abuse, could improve adherence and enhance patient outcomes.

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