

Prescription Medication Adherence and Compliance in Chronic Disease Patients

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Conflict of interest: Nil

Abstract:

Background: Medication adherence and compliance are crucial for effective chronic disease management. Poor adherence can lead to disease progression, increased hospitalizations, and higher healthcare costs. This study examines the patterns and factors influencing medication adherence among chronic disease patients.

Objectives: To assess medication adherence levels, identify barriers to compliance, and explore strategies to improve adherence in chronic disease patients.

Methods: A cross-sectional survey was conducted with 150 chronic disease patients. Medication adherence was evaluated using a standardized questionnaire. Statistical analyses, including Chi-square tests and logistic regression, were performed to identify factors influencing adherence.

Results: The study found that 62% of patients were non-adherent to their prescribed medication regimen. Key barriers included forgetfulness (32%), medication cost (27%), and side effects (21%). Patients with higher health literacy showed better adherence rates ($p < 0.05$).

Conclusion: Medication non-adherence is prevalent among chronic disease patients, primarily due to forgetfulness, cost, and side effects. Interventions focused on patient education and cost reduction could improve adherence.

Keywords: Medication adherence, Compliance, Chronic disease, Health literacy, Barriers to adherence.

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Introduction

Chronic diseases, including diabetes, hypertension, and cardiovascular diseases, are leading causes of morbidity and mortality worldwide. Effective management of these conditions relies heavily on medication adherence and compliance. Adherence refers to the extent to which patients take their medications as prescribed, while compliance is the degree to which patients follow healthcare providers' recommendations.

Despite the proven benefits of adherence, non-compliance remains a significant public health issue, leading to disease progression, increased hospitalizations, and higher healthcare costs [1-5]. Medication non-adherence is influenced by multiple factors, including patient-related factors (e.g., forgetfulness, lack of knowledge), medication-related factors (e.g., complexity, side effects), and healthcare system factors (e.g., cost, access to care). Understanding these factors is essential to design effective interventions for improving medication adherence [6-8].

In chronic disease management, consistent medication intake is critical to controlling symptoms, preventing complications, and improving quality of

life. However, studies have shown that approximately 50% of patients with chronic diseases are non-adherent to their medication regimen.

This non-compliance leads to suboptimal health outcomes and increases healthcare costs significantly [9-12]. Given the high prevalence of non-adherence and its impact on health outcomes, it is crucial to investigate the patterns and determinants of medication adherence among chronic disease patients.

This study aims to assess medication adherence levels, identify barriers to compliance, and explore strategies to enhance adherence. By understanding the reasons for non-compliance, healthcare providers can implement targeted interventions to improve medication adherence and ultimately enhance chronic disease management.

Materials and Methods

This cross-sectional survey was conducted among 150 chronic disease patients receiving care at a tertiary healthcare facility. Patients aged 18 years and older with a confirmed diagnosis of chronic disease (e.g., diabetes, hypertension, cardiovascular

disease) were included. Patients with cognitive impairments or those unwilling to participate were excluded.

Data were collected using a standardized questionnaire, which assessed medication adherence, barriers to compliance, and socio-demographic characteristics. Medication adherence was measured using the Morisky Medication Adherence Scale (MMAS-8). Statistical analyses, including Chi-square tests

and logistic regression, were performed to identify factors influencing medication adherence.

A p-value < 0.05 was considered statistically significant.

Results

Table 1 shows the demographic characteristics of the study population. The majority of patients were aged 40-60 years (58%) and female (54%).

Table 1: shows the demographic characteristics of the study population.

Characteristic	Frequency	Percentage
Age (40-60 years)	87	58%
Gender (Female)	81	54%
Educational Level (High)	56	37%
Monthly Income (<\$500)	64	43%

Table 2: presents the medication adherence levels and key barriers to compliance.

Variable	Frequency	Percentage
Adherent	57	38%
Non-Adherent	93	62%
Forgetfulness	48	32%
Medication Cost	41	27%
Side Effects	32	21%

Discussion

The findings reveal a high prevalence of medication non-adherence among chronic disease patients, consistent with existing literature. Forgetfulness, medication cost, and side effects were identified as the primary barriers to adherence [13,14]. These results highlight the need for targeted interventions, such as patient education programs and cost-reduction strategies, to improve medication compliance [15]. Patients with higher health literacy demonstrated better adherence, suggesting that enhancing patient education and awareness can positively impact compliance rates. Additionally, simplifying medication regimens and addressing side effects through alternative therapies may further improve adherence [16-18]. This study's cross-sectional design limits the ability to establish causality between the identified factors and medication adherence. Future longitudinal studies are recommended to explore causal relationships and evaluate the effectiveness of adherence-enhancing interventions.

Conclusion

Medication non-adherence is prevalent among chronic disease patients, leading to adverse health outcomes and increased healthcare costs. Key barriers include forgetfulness, medication cost, and side effects. Interventions focused on patient education, cost reduction, and simplified medication regimens are needed to enhance adherence and improve chronic disease management.

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