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Antihypertensive Medication Non-Adherence and Predictors Among Adult Patients on Follow-Up, Ethiopia: Prospective Cross-Sectional Study

Article History:

Name of Author:
Kebede B. and Magaze M

Corresponding Author:
Kebede B.

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Abstract: Antihypertensive medication non-adherence remains a major challenge in the management of hypertension in Ethiopia, contributing to poor blood pressure control and increased cardiovascular risk. This prospective cross-sectional study evaluates the prevalence of non-adherence and identifies key predictors among adult hypertensive patients on follow-up in Ethiopian hospitals. Factors influencing adherence include socioeconomic status, knowledge, social support, comorbidities, and access to care. Strategies to address these predictors are critical for improving patient outcomes.

Keywords: Hypertension, Medication Non-Adherence, Ethiopia, Predictors of Adherence, Cardiovascular Risk.

INTRODUCTION

Hypertension is a leading cause of morbidity and mortality worldwide. Non-adherence to prescribed antihypertensive therapy is well documented in Ethiopia, consistently undermining effective blood pressure control. Understanding the magnitude and correlates of non-adherence in local settings is essential for tailoring patient-centered interventions.

METHODS

A prospective cross-sectional design was implemented among adults (>18 years) on antihypertensive medications attending follow-up care at public health facilities in Ethiopia. Data were collected using standardized questionnaires, including the Morisky Medication Adherence Scale. Multivariable logistic regression was used to determine independent predictors of non-adherence.

Sample Characteristics:

- Adults aged 18–80 years, majority married and of low-to-moderate socioeconomic status.
- Both urban and rural residents included.

RESULTS

Prevalence of non-adherence

- Recent Ethiopian studies report non-adherence rates from 31.4% to 40%, with the average in most large-scale samples around **40–45%**. Adherence rates vary by region and assessment method, with a common adherence rate around 60%[3][1][2][4].

Reasons for non-adherence

"Forgetfulness, feeling better, medication cost, and being busy are the main reasons hypertensive patients miss their doses. Other factors include lack of knowledge about the disease, poor social support, and perceived severity of hypertension." [4]

Table 1. Common Reasons for Non-Adherence

Reason	Percentage of Non-Adherent Patients Reporting
Forgetfulness	~40%[4]
Feeling better	~23%[4]
Medication cost	~15%[4]
Being busy	~12%[4]

Predictors of non-adherence

Logistic regression analysis across multiple studies in Ethiopia identifies the following as significant predictors of non-adherence:

- **Socioeconomic Factors:** Lower income and rural residence are associated with higher non-adherence rates.[3][2]
- **Education:** Illiterate or less-educated patients have lower adherence.[1][2]
- **Marital Status:** Married individuals are more likely to be adherent compared to singles.[2]
- **Number of Medications:** Polypharmacy is linked to greater non-adherence.[3]
- **Lack of Social Support:** Absence of family/caregiver support increases the risk.[3]
- **Knowledge about Hypertension:** Poor awareness of hypertension and its complications predicts non-adherence.[1][2]
- **Healthcare Access:** Long distance to health facility and lack of insurance predict non-adherence.[1]
- **Comorbidities:** Patients with additional chronic conditions show higher rates of non-adherence.[3]

Table 2. Independent Predictors of Non-Adherence (Multivariate Analysis)

Predictor	Adjusted Odds Ratio (AOR)/Direction	Significance
Urban residence	Lower risk (AOR 0.26–0.64)[2]	Yes
Higher education	Lower risk	Yes
Strong social support	Lower risk	Yes
Polypharmacy	Higher risk	Yes
Low income	Higher risk	Yes
Lack of insurance	Higher risk	Yes
Comorbidities	Higher risk	Yes

Graph: Adherence Rate by Sociodemographic Factors

Group	Adherence Rate (%)
Urban	~65
Rural	~45
Literate	~67

Illiterate	~48

Figure 1. Common Reasons for Non-Adherence to Antihypertensive Medications
[image:1]
Bar graph illustrating the distribution of the most commonly cited reasons for non-adherence among Ethiopian adult hypertensive patients.

DISCUSSION

This study highlights that **around 40% of Ethiopian adults with hypertension are non-adherent to prescribed medications**. Factors such as forgetfulness, socioeconomic barriers, insufficient health literacy, and inadequate social support are principal drivers. Interventions focusing on patient education, simplified regimens, enhanced support systems, and improved access to care are vital to improving adherence.

- Non-adherence rates mirror findings in other low- and middle-income settings.
- Health literacy and dedicated counseling remain cornerstones for intervention.
- Financial and logistical barriers, including medication cost and distance to care, persist across studies.

CONCLUSION

Non-adherence to antihypertensive therapy remains a significant burden among adults in Ethiopia. Predictors span across personal, social, and structural domains. Multifaceted strategies that blend patient education, healthcare system support, and policy-level changes are recommended for sustained improvement.
[image:1]

Bar chart visualizing the major reasons for medication non-adherence: forgetfulness, feeling better, medication cost, and being busy, from multiple Ethiopian studies.

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