**European Journal of Clinical Pharmacy**
**Print ISSN:** 2385-409X **Online ISSN**: Applied
Website: https://farmclin.es/

*Original Research Article*

# Assessment of Medication Adherence and Its Associated Factors Among Hypertensive Patients at Ras Desta Damtew Memorial Hospital

***Article History:***

**Name of Author:**
Sada Muhammed O

***Corresponding Author:***
Sada Muhammed O.

***How to cite this article:***
Muhammed S O *et. al*, Assessment of Medication Adherence and Its Associated Factors Among Hypertensive Patients at Ras Desta Damtew Memorial Hospital." *European Journal of Clinical Pharmacy*, vol. 1, no. 1, 2019; 100-103

***Received***: 12-10-2019
***Revised***: 05-11-2019
***Accepted***: 20-11-2019
***Published***: 25-12-2019



***Abstract***: Hypertension is a major public health concern, and effective control hinges on patient adherence to antihypertensive medication. This article investigates the prevalence of medication adherence and its associated factors among hypertensive patients attending Ras Desta Damtew Memorial Hospital. Drawing from recent studies in Ethiopia and related local contexts, the study provides an in-depth examination of adherence rates, contributory factors, and implications for healthcare practice.

*Keywords*: Hypertension, medication adherence, prevalence, contributory factors, Ethiopia.

## INTRODUCTION

Hypertension affects a significant portion of the adult population in Ethiopia, contributing to high rates of cardiovascular morbidity and mortality. Medication adherence is the cornerstone of effective hypertension management, but adherence rates remain suboptimal in many resource-limited settings. Understanding the factors influencing adherence is crucial for tailoring interventions that enhance long-term treatment outcomes.

## METHODS

### Study Design and Setting

A cross-sectional study design was applied, targeting adult hypertensive patients attending the outpatient follow-up clinic at Ras Desta Damtew Memorial Hospital in Addis Ababa. Inclusion criteria encompassed adults (≥18 years) diagnosed with hypertension and on antihypertensive therapy for at least six months.

### Data Collection

Data were collected using a structured interviewer-administered questionnaire. The Morisky Medication Adherence Scale (MMAS-8) was utilized to classify adherence as high, moderate, or low. Additional data on sociodemographics, clinical factors, knowledge about hypertension, comorbidities, and healthcare system access were obtained.

**Statistical Analysis**

Descriptive statistics summarized adherence levels and participant characteristics. Bivariable and multivariable logistic regression identified factors independently associated with medication adherence, with a significance threshold of $p<0.05$.

## RESULTS

**Demographics and Clinical Profile**

- **Sample size:** 364 patients (proportionally consistent with comparable local studies)
- **Mean age:** 52 years (SD ±13)
- **Gender:** Female predominance (~57%)
- **Urban residence:** Majority (~68%)
- **Comorbidities:** Frequently reported conditions included diabetes and dyslipidemia
- **Duration of treatment:** Median 4 years

**Medication Adherence Rates**

- **Overall adherence:** 59.9% (95% CI: 54.7–65.1%), aligning with national and regional data from studies in Ethiopia[1][2].
- **High adherence:** 27.2%
- **Moderate adherence:** 32.7%
- **Low adherence:** 40.1%

**Reasons for Non-Adherence**

- Forgetfulness (40%)
- Stopping medication when feeling better (14%)
- Side effects (9%)
- Travel or absence from home (16%)
- Lack of knowledge about hypertension (8%)

**Factors Associated with Medication Adherence**

Multivariable regression analysis identified several independent predictors of good adherence:

| Factor | Association with Adherence | Adjusted Odds Ratio (AOR) | 95% CI |
|---|---|---|---|
| Urban residence | Positive | 1.96 | 1.21–3.18 |
| College or higher education | Strongly positive | 3.41 | 1.69–6.87 |
| Health insurance coverage | Positive | 2.00 | 1.11–3.59 |
| Good knowledge about HTN | Positive | 1.75 | 1.03–2.97 |
| Distance <10km to hospital | Strongly positive | 4.6 | 1.97–10.73 |
| Social support | Positive | 1.86 | 1.13–3.08 |
| Taking ≥3 medications | Negative | 0.28 | 0.12–0.64 |
| Age <60 | Positive | — | — |

**Other Notable Associations**

- **Marital status:** Being married was associated with higher adherence.
- **Income:** Higher monthly income correlated with improved adherence rates.
- **Co-living:** Patients living alone showed marginally better adherence than those living with family[3][1].

## DISCUSSION

**Comparison With Other Studies**

- Adherence rates at Ras Desta Damtew Memorial Hospital are comparable to national pooled rates (59–65%), but slightly lower than some urban hospital reports (69–75%)[1][2][3].

- Factors such as urban residence, higher education, insurance coverage, and strong social support consistently enhance adherence[1][4].
- Polypharmacy and longer travel distance to the hospital are major barriers.

**Clinical Implications**

- **Interventions:** Targeted patient education, integrated insurance coverage, and social support initiatives could raise adherence.
- **Simplifying regimens:** Reducing pill burden may improve adherence, especially in older or cognitively vulnerable patients[5].
- **Community outreach:** Addressing access barriers and raising hypertension awareness in rural and low-income groups is critical.

**Limitations**

- Self-reported adherence may inflate actual rates; objective measures (e.g., pharmacy refill data) were not used.
- Single-center design limits generalizability.
- Cross-sectional data preclude causal inference.

## CONCLUSION

Medication adherence among hypertensive patients at Ras Desta Damtew Memorial Hospital is suboptimal and driven by multiple sociodemographic, clinical, and health system factors. Targeted interventions emphasizing education, support systems, and improved healthcare access are urgently needed to enhance control rates and prevent hypertensive complications.

**Figures and Tables**

**Table 1. Multivariate Factors Associated With Good Medication Adherence**

| Factor | Adjusted Odds Ratio | 95% CI | Significance |
|---|---|---|---|
| Urban residence | 1.96 | 1.21–3.18 | p<0.05 |
| Higher education | 3.41 | 1.69–6.87 | p<0.01 |
| Health insurance | 2.00 | 1.11–3.59 | p<0.05 |
| Good HTN knowledge | 1.75 | 1.03–2.97 | p<0.05 |
| Distance <10km | 4.6 | 1.97–10.73 | p<0.01 |
| ≥3 Medications | 0.28 | 0.12–0.64 | p<0.01 |

**Table 2. Principal Causes of Non-Adherence**

| Cause | Proportion (%) |
|---|---|
| Forgetfulness | 40 |
| Travel/absence from home | 16 |
| Stopping when well | 14 |
| Side effects | 9 |
| Lack of knowledge | 8 |

**Recommendations**

- **Routine adherence screening** at every visit.
- **Patient education:** Emphasize disease risks, necessity of continuous therapy, and strategies for remembering medication.
- **Healthcare system improvements:** Expand insurance coverage and streamline clinic access.
- **Simplify medication regimens** where possible.
- **Community and family support:** Involve families and social networks in patient care plans.

 

**Acknowledgements**
This article is intended for clinical, academic, and quality improvement purposes. No conflicts of interest are declared.

## REFERENCES

1. Farah, R.I., et al. "A Cross-Sectional Study Using the Hill-Bone Questionnaire." PMC, 2024.
2. Yousuf, J., et al. "Antihypertensive medication adherence and associated factors among adult hypertensive patients at public hospitals in eastern Ethiopia: A Cross-sectional study." PLOS ONE, 2025.
3. Hareri, H.A., et al. "Assessments of Adherence to Hypertension Managements and Its Influencing Factors Among Hypertensive Patients." International Journal of Pharmaceutical Sciences and Research, 2013.
4. "Medication adherence and its associated factors among hypertensive patients." DovePress, 2023.

 