



Harnessing Bitter Leaf for Hypertension: A Case Study from Kpalbe Health Centre

By: Linda Bakita Asakiya
Midwife, Advocate & Innovator

Introduction

Who I am

I'm Linda Bakita Asakiya, a dedicated Midwife, passionate Beader, and Business Coach and a mother of three, As a Midwife I'm driven to make a positive impact in my community. Working at Kpalbe Health Centre, I've been recognized as the best Nurse or Midwife for my outstanding contributions.



My Community Projects

- ☐ Bitter Leaf & Hypertension Study
- ☐ Cassava Leaves for Anemia
- ☐ Teenage Pregnancy Prevention via Beads Training
- ☐ “Clean Your Area” Sanitation Campaign
- ☐ Skin Bleaching Awareness in Youth
- ☐ Anti-Drug Mother-to-Mother Support Circles
- ☐ Strengthening Parent-Child Bonds
- ☐ Research on accuracy of hemoglobinometer of our facility

Overview Bitter Leaf & Hypertension Study

Hypertension is a global health burden linked to heart disease, stroke, and kidney failure.

Bitter leaf (*Vernonia amygdalina*) is a traditional African remedy with potential antihypertensive effects.

This community-based case study explores its impact.



Study Objective

- ☐ Evaluate effects of bitter leaf juice and lifestyle changes on blood pressure
- ☐ Target: underserved hypertensive adults and pregnant women
- ☐ Promote low-cost, local solutions



Methods

- ❑ **Participants:** 10 adults with Hypertension
- ❑ **Intervention:** 1.5L/day bitter leaf juice + lifestyle advice
- ❑ **Duration:** 12 weeks
- ❑ **Monitoring:** BP readings, follow-up visits

Case Study 1 – Male, 45

- ❑ Initial BP: 199/154 mmHg
- ❑ Issues: High-sodium diet, smoking, stress
- ❑ Changes: Onion over Maggi, fruit/veg intake, relaxation
- ❑ **Results:** BP dropped to 160/120 mmHg in 2 weeks

Case Study 2 – Female, 56

- ❑ Initial BP: 200/180 mmHg, chronic hypertension
- ❑ Intervention: Bitter leaf, onion, multivitamin, stress relief
- ❑ **Monitoring:** Regular BP checks, lifestyle adherence
- ❑ **Next Steps:** Continue natural interventions,



Case Study 3 – Pregnant, 32 Weeks GA

- ❑ Initial BP: 150/90 mmHg
- ❑ Daily 1.5L/day bitter leaf juice + iron-rich foods
- ❑ Results: Week 3 BP = 120/80 mmHg
- ❑ No fetal/maternal side effects

Bitter Leaf's Antihypertensive Actions

1. **ACE Inhibition:** Blocks angiotensin II formation, reducing vasoconstriction
2. **Bradykinin Preservation:** Promotes vasodilation for better blood flow
3. **Potassium-Rich:** Aids sodium excretion and vessel relaxation
4. **Antioxidants:** Protect blood vessels from oxidative stress

Discussion & Evidence

- ❑ All patients showed BP improvements
- ❑ It aligned with lab findings from researches of Saliu et al., 2012; Juwita et al., 2023)
- ❑ Antioxidant + effects

Limitations

- ❑ Small sample size
- ❑ Lack of support for scale up.

Future Directions

- ❑ Conduct randomized controlled trials
- ❑ Monitor lipid profile changes (LDL/HDL)
- ❑ Assess safety use in pregnancy over long-term period
- ❑ Isolate and study bioactive plant compounds
- ❑ Measure quantity bitter-leaf per 1.5L of water as a daily dosage

Conclusion

- ❑ Bitter leaf shows real promise in reducing hypertension
- ❑ Supports traditional medicine in evidence-based practice
- ❑ Accessible, affordable, and well-tolerated

References

- Saliu et al., 2012 (ACE inhibition)
- Juwita et al., 2023 (Animal BP studies)
- Pol et al., 2024 (Phytochemical profile)

Pictures from projects and activities

















Thank you