



Neurolathyrism in Ethiopia

Prevalence, Associated Factors, and Social Status in Delanta, Amhara Region

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About the Researcher



CONFERENCE DIALOGUE



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Dr. Yemsirach Abera Ayele

2025 -2026 Chevening Scholar

MSc Global Public Health and Policy, Queen Mary University of London

- Medical Doctor and researcher from Ethiopia
- Founded Trinity Antenatal Consultancy in Addis Ababa (2023)
- Provided healthcare in conflict -affected areas at Ethiopian Federal Police Hospital
- Established makeshift clinics during humanitarian crises

Committed to strengthening healthcare systems and advancing maternal health in Ethiopia and beyond



Understanding Neurolathyrism

What is it?

A debilitating neurodegenerative disorder caused by consuming *Lathyrus sativus* (grass pea), creating significant public health challenges in Ethiopia and globally.

Why it matters

This condition affects vulnerable populations who depend on grass pea as a food source during drought and food insecurity, leading to permanent disability.

Research Approach

01

Study Design

Community -based cross -sectional survey conducted
February -March 2023

03

Data Collection

Structured questionnaire with written informed consent from
all participants

02

Sample Selection

480 randomly selected individuals in Delanta district using
multistage sampling technique

04

Analysis

Statistical analysis using Epi version 7.2 and SPSS version
26.0, P value < 0.05



11.9%

Prevalence of Neurolathyrism

Of 470 study participants, 56 individuals reported having neurolathyrism in the Delanta district, revealing a notably high prevalence in this population.

Individual Risk Factors



Adjusted odds ratios reveal significant associations between neurolathyrism and demographic characteristics, with male sex showing the strongest correlation.



Household -Level Factors

Family Size

AOR = 2.332

95% CI = 1.159-4.692

Larger families show increased risk, likely due to greater reliance on grass pea as an affordable food source.

Farmland Lease

AOR = 2.734

95% CI = 1.23 -6.06

Households leasing farmland face higher vulnerability, reflecting economic constraints and food insecurity.

Devastating Social Impact

73%

School Discontinuation

Patients forced to leave education due to lack of support systems and disability accommodations

21.4%

Divorce Rate

Marriages dissolved after disease onset, highlighting social stigma and caregiving challenges

Neurolathyrism creates profound social consequences beyond physical disability, disrupting education, relationships, and community integration.



Key Findings Summary



High Prevalence

11.9% prevalence rate demonstrates significant public health burden in Delanta district



Multiple Risk Factors

Age, gender, education, family size, and economic status all contribute to vulnerability



Social Consequences

Disease leads to educational disruption, relationship breakdown, and social isolation



Implications for Action

Food Security

Address underlying food insecurity driving grass pea consumption in vulnerable populations

Education & Awareness

Target literacy programs and health education, especially for at-risk male populations

Social Support

Develop support systems for patients to prevent educational dropout and family dissolution

Economic Interventions

Support households with farmland access and economic alternatives to reduce vulnerability