



# Neurolathyrism in Ethiopia

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

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# About the Researcher



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Former Chief Clinical Officer and Principal Investigator at Delanta Hospital, Ethiopia. Committed to evidence-based practice and global health transformation.

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# Understanding Neurolathyrism

What is it?

A debilitating neurodegenerative disorder caused by consuming *Lathyrus sativus*, a legume commonly eaten during food shortages.

This condition represents a significant public health challenge, particularly prevalent across various regions of Ethiopia.



# Research Methodology

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## Study Design

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

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## Data Collection

Structured questionnaire with written informed consent from participants

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## Sample Selection

480 randomly selected individuals in Delanta district using multistage sampling

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## Analysis

Statistical analysis using Epi Info 7.2 and SPSS 26.0,  $P < 0.05$  for significance



# 11.9%

## Prevalence of Neurolathyrism

Of 470 study participants, 56 individuals reported having neurolathyrism in the Delanta district.

# Individual-Level Risk Factors



Older Age

AOR = 2.69

95% CI: 1.064-9.341



Male Sex

AOR = 3.569

95% CI: 1.794-7.098



Cannot Read

AOR = 3.128

95% CI: 1.224-7.993

All three factors showed statistically significant associations with neurolept psychosis prevalence.



# Household-Level Risk Factors

## Family Size

Larger families showed increased risk

**AOR = 2.332**

95% CI: 1.159-4.692

## Farmland Lease

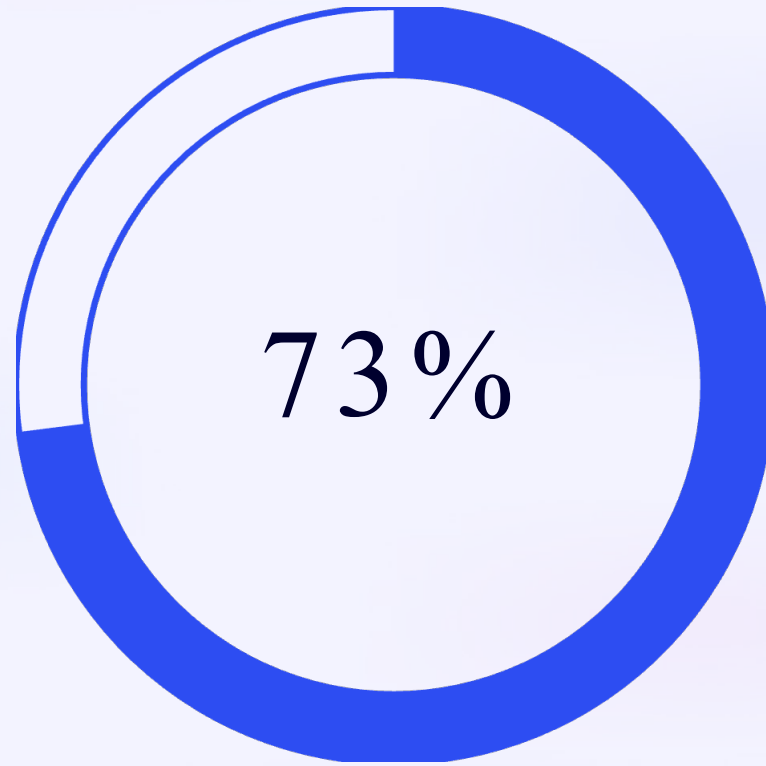
Leasing farmland significantly associated

**AOR = 2.734**

95% CI: 1.23-6.06

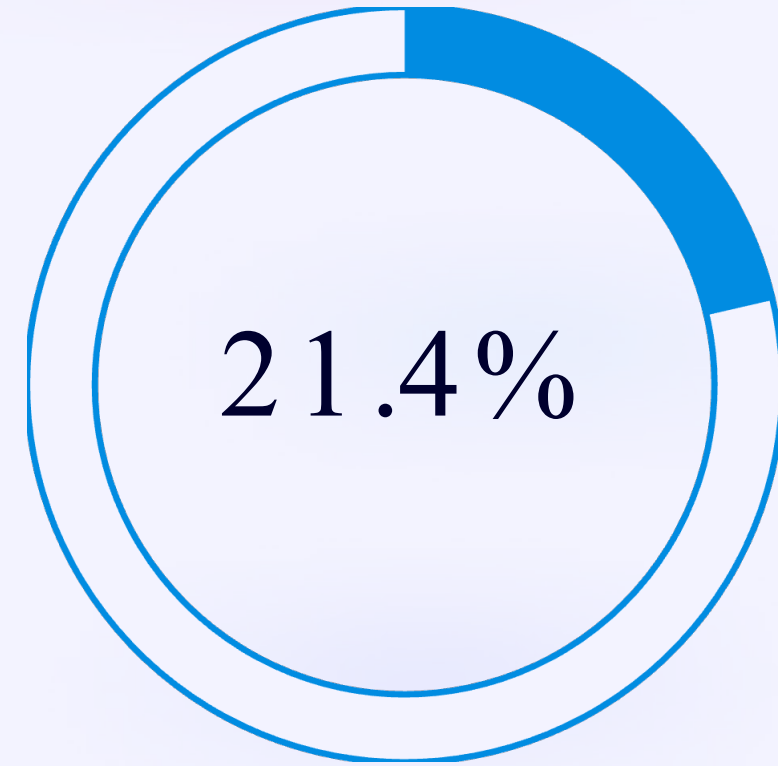


# Devastating Social Impact



School Discontinuation

Patients forced to leave education due to lack of support



Divorce Rate

Marriages ended after disease diagnosis

Neurolathyrism profoundly disrupts education, relationships, and social integration for affected individuals.



# Key Findings Summary



## High Prevalence

11.9% of the population affected—a notably high rate requiring urgent attention



## Multiple Risk Factors

Age, gender, education, family size, and land tenure all significantly associated



## Severe Social Consequences

Majority face educational disruption and relationship breakdown

# Implications for Public Health

## Education Programs

Target vulnerable populations with literacy and health education initiatives

## Food Security

Provide alternative food sources to reduce *Lathyrus sativus* consumption

## Social Support

Establish support systems for affected individuals and families