User acceptance of a spatial repellent for mosquito control: Blinded longitudinal evidence from the AEGIS trial in Busia, western Kenya.

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Introduction

Social science study assumptions:

• Epi/ento efficacy is not sufficient for new product adoption.
• End-users must view new product as safe, effective, beneficial, good fit for everyday life.

Study objective:

Assess perceived efficacy, user preferences, social acceptability of SR over 2 years.
Methods: Sampling

• Modified Trials of Improved Practices (TIPs).
• 12 HLC clusters in Teso South, Busia County.
• 30 households – roughly equal intervention/control – were purposively selected for extended commitment.
• The study team remained blinded to the assignment.
• We did a random sample as we were unaware of the study arm assignments.
• Independent statistician drew a random sample: 12 clusters (6 intervention, 6 control)
Methods: Semi-structured in-depth interviews

• Semi-structured IDIs over 2 years – input on acceptability: installation, use, replacement
• 5 IDIs per participant: 1 week + 2, 6, 12 & 18 months after installation.
• Ateso, Swahili

Team member conducting a TIPS interview with a participant
Methods: Observations

• Variables checked: product installation state, physical condition, location of missing products.

• Observed only two structures in the participant's compound.

• Data was collected on tablets.
Interviews were audio-recorded, transcribed, translated to English, and coded thematically with ATLAS.ti platform. Quotes underwent longitudinal analysis using data reduction tables in MS Excel.
Results: Installation issues

• Tape left marks on walls, and products fell frequently.
• Products in the kitchen were covered with soot and smoke.
• Some products had come off the hook and were hanging on a single hook.
Results: Alternative uses of hooks

- Participants normally hang items on their walls.
- Does this affect SR efficacy?
Results: Acceptability & perceived efficacy

• Current results include all interviews; will explore differences between intervention & control participants after unblinding

• Participants gave positive feedback about the products. They protect against mosquitoes without requiring daily setup, unlike nets.

• Many people said they observed a reduction in mosquito density and activities, and some stopped using nets because the SR is effective.

• However, some reported decreased efficacy in subsequent replacements.
Results: Future improvements, & distribution channels.

• One thing people didn’t like about the product is the changing after 28 days. They want longer-lasting products with more *dawa* for 3, 6, or 12 months.

• Fewer products on walls.

• Some want biodegradable products due to environmental concerns.

• Size, shape, or color doesn't matter as long as they work.

• Install products in more locations like bathrooms, schools, and hospitals.

• Suggested distribution channels: CHVs as during study, Village elders as with ITNs, Pick up from nearby distribution point.
Summary

• The study examined end-users' preferences and perceptions of the product's feasibility, efficacy, and acceptability.

• Feedback was mostly positive, with a request for the product to last longer.

• Manufacturers can improve product acceptability by using these insights to tailor products to users' preferences.

• More analysis will follow after unblinding.
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