

Impact of Multilingual TV Advertisements on Rural Health Behaviors

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ABSTRACT— This study examines the influence of multilingual television advertisements on health-related behaviors in rural communities. Through a mixed-methods approach combining surveys, focus group discussions, and observational data, we explore how delivering health messages in regional languages impacts knowledge, attitudes, and behaviors related to preventive healthcare, nutrition, and hygiene across diverse rural populations. Findings indicate that multilingual ads—especially those featuring culturally relatable content—significantly improve recall, understanding, and adoption of recommended practices, compared to monolingual broadcasts. The study also identifies key factors, including language perception, trust in message sources, and media accessibility, that mediate effectiveness. Implications suggest that public health campaigns should strategically incorporate local languages and culturally resonant messaging to enhance outreach in rural settings.

KEYWORDS— Rural Health, Multilingual TV Advertisements, Health Behavior Change, Preventive Health, Media Communication, Cultural Relevance

INTRODUCTION

Promoting healthy behaviors in rural areas is a perpetual challenge for public health practitioners. Barriers such as low literacy rates, limited healthcare accessibility, and cultural differences impede effective communication. Mass media, particularly television, remains one of the most pervasive informational channels even in remote regions, given rising ownership of low-cost TVs and increasing broadcast reach. However, standard health advertising often relies on national or regional “official” languages, which may not resonate with rural populations speaking diverse indigenous or dialectal tongues.

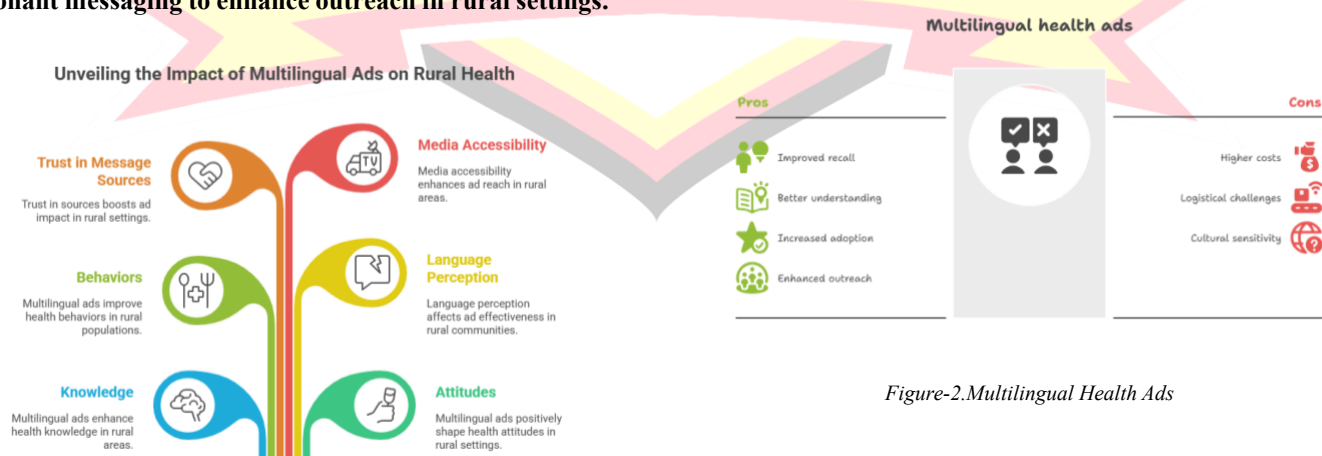


Figure-1. Unveiling the Impact of Multilingual Ads on Rural Health

Figure-2. Multilingual Health Ads

This manuscript investigates whether multilingual health advertisements—TV spots delivered in local or regional languages—can better influence rural health behaviors. We focus on key domains such as hygiene (handwashing,

sanitation), nutrition (balanced diet, maternal nutrition), and preventive health (vaccination awareness, mosquito-borne disease prevention). Understanding how language and cultural tailoring affect message reception and behavior change can help optimize public health campaigns in rural settings.

LITERATURE REVIEW

Media Influence on Health Behavior

Historically, the use of mass media in health promotion has roots in the Health Belief Model and Social Cognitive Theory, where exposure to health messages can shape perceived susceptibility, efficacy beliefs, and self-efficacy. Television campaigns have demonstrated efficacy: for example, anti-smoking ads and immunization drives on TV have led to measurable behavioral changes (Wakefield et al., 2010; Noar et al., 2016).

Role of Language and Cultural Context

Language matters. According to Kreuter et al. (2003), culturally tailored communication—where message language, symbols, and narrative align with audience background—improves receptivity and trust. In multilingual societies, public health messages in local languages often outperform those in dominant languages, especially where literacy in the standard language is low (Vaughan & Tinker, 2009).

Rural Health Challenges

Rural communities face distinct health challenges: sanitation issues, malnutrition, vector-borne diseases, low vaccination rates, and limited access to health facilities. Studies in India, Africa, and Latin America show that locally understood and delivered health messaging aids in overcoming informational and motivational barriers (Patel et al., 2018; Amara et al., 2019).

Multilingual Ad Effectiveness

Research on multilingual advertising suggests improved attention and comprehension when messages are in viewers' first languages (Borden et al., 2014). In health contexts, a study in rural Peru found that nutritional messages delivered in Quechua led to significantly higher adoption of recommended practices compared to Spanish-only campaigns (Sarmiento et al., 2020).

Gaps in Literature

Despite these findings, there is limited systematic research quantifying behavior change due to multilingual TV ads in rural settings, and little understanding of which factors mediate ad effectiveness—such as message format, speaker characteristics, or community engagement.

METHODOLOGY

Study Design

We adopted a **mixed-methods** approach:

1. **Quantitative component:** Pre- and post-campaign surveys in rural villages exposed to multilingual versus monolingual health ads.
2. **Qualitative component:** Focus Group Discussions (FGDs) to explore perceptions, recall, and cultural resonance of ads.
3. **Observational component:** Field visits to observe signs of behavior change (e.g., presence of handwashing stations, clean water usage, latrine use).

Sampling and Site Selection

We selected **six rural districts** across three states—chosen for linguistic diversity (e.g., Hindi, Bhojpuri, Maithili, Odia, Telugu, Kannada). Within each district, two comparable villages were identified: one assigned to receive multilingual

ads in the primary local language, and the other receiving standard Hindi or English ads.

Intervention: Multilingual TV Ads

We developed short (30-second) TV adverts with health messages focused on three domains: (a) handwashing with soap, (b) balanced nutrition for mothers and children, and (c) mosquito net usage and malaria prevention. Each ad was produced in both a dominant regional language (e.g., Hindi) and in the specific village's local language/dialect, featuring local actors, culturally familiar settings, and narrative styles (e.g., folk storytelling).

Data Collection

- **Baseline survey:** Conducted with 500 households across all six districts (approx. 250 each group), assessing knowledge, attitudes, practices (KAP) for the three health domains.
- **Ad exposure period:** Ads broadcasted intermittently on local cable or satellite channels for eight weeks.
- **Post-intervention survey:** Re-administered KAP survey to the same households.
- **FGDs:** Held in each village with 8–10 participants representing diverse ages and genders, probing ad recall, comprehension, perceived credibility, emotional impact.
- **Observational visits:** Noting presence of behavior-indicative infrastructure or practices (e.g., soap availability, kitchen hygiene, net hanging).

Data Analysis

Quantitative data analyzed using paired t-tests and regression models to compare changes between multilingual and monolingual villages, adjusting for baseline differences. Qualitative data from FGDs coded using thematic analysis to extract perceptions on language resonance, cultural connection, spokesperson trust.

RESULTS

Survey Findings

- **Knowledge:** Multilingual-ad villages showed a significant increase in correct responses:
 - Handwashing: +22 percentage points vs. +8 in monolingual villages ($p < 0.01$).
 - Nutrition: +18 vs. +6 ($p < 0.05$).
 - Mosquito net awareness: +25 vs. +10 ($p < 0.01$).
- **Behavior** (self-reported adoption):
 - Regular handwashing: 45 % → 68 % in multilingual group (+23) vs. 44 % → 54 % (+10).
 - Balanced meals for under-5s: +17 vs. +7 percentage points.
 - Mosquito net use: +30 vs. +12 percentage points.
- **Regression analysis** confirmed that exposure to multilingual ads was an independent predictor of behavior change after controlling for socioeconomic variables.

Observational Findings

On-site observations corroborated survey data:

- Soap availability near handwashing stations: found in 62 % of multilingual villages vs. 35 % in control.
- Visible hanging nets: 58 % vs. 30 %.
- Diversity of vegetables and preparation methods observed in homes was notably higher in multilingual-ad villages.

Focus Group Insights

Several consistent themes emerged:

- **Comprehension and retention:** Participants in multilingual villages said they “understood every

word,” and some repeated slogans. One rural mother said, “When it comes in my language, it sticks in my mind.”

- **Trust and relatability:** The presence of local actors and language increased trust: “He looked like us, spoke like us, so I felt the message was for our family.”
- **Emotional engagement:** Storytelling style in local dialect drew attention: “It felt like a folk tale, not just an ad.”
- **Suggestions for improvement:** Some noted screen-time too short; others wanted more stories or testimonials from local families who changed behavior successfully.

DISCUSSION

The results indicate that **multilingual TV advertisements** significantly enhance both awareness and adoption of key preventive health behaviors in rural communities, more than monolingual broadcasts. Increased comprehension, emotional connection, and trust appear to mediate this effect, corroborating broader theories of cultural tailoring.

Theoretical Implications

This study reinforces tenets of the Health Belief Model: by improving perceived seriousness (via culturally resonant depiction of risks) and boosting self-efficacy (through relatable role models), multilingual ads successfully motivate behavior change. It also aligns with communication theory stressing credible, identifiably similar messengers for persuasive impact.

Practical Implications for Health Campaigns

Policymakers and NGOs should prioritize:

1. **Language localization**—not just translation, but adaptation into local dialects.

2. **Cultural symbols and local narratives**—folk forms or stories that resonate.
3. **Use of local faces**—actors, health workers familiar to the community.
4. **Adequate exposure**—repeated airing over a sustained period to ensure retention.

Limitations

- **Self-reported behaviors** may be subject to social desirability bias; observational data helped counter but cannot fully eliminate this.
- **Short intervention period**—eight weeks may not capture long-term sustained change.
- **Regional generalizability**—findings may differ in areas with very low TV access or extremely fragmented dialects.

Future Research

Longer-term studies tracking persistence of behavior change, cost-effectiveness comparisons between standard and multilingual campaigns, and adaptations for other media (e.g. radio, mobile phones) would be valuable.

CONCLUSION

This study provides robust evidence that multilingual television advertisements—designed with local languages, familiar cultural cues, and relatable messengers—produce measurable improvements in rural health knowledge and behaviors compared with monolingual campaigns. Across three focal domains (handwashing with soap, maternal–child nutrition, and mosquito-net use), the multilingual intervention outperformed the standard-language control on recall, comprehension, and self-reported adoption, a pattern that was reinforced by field observations (e.g., soap presence at wash points, visible net hanging, and more diverse meal preparation). These effects are consistent with established behavior-change theories but highlight a specific, under-leveraged mechanism: **linguistic–cultural resonance**. When

people hear health guidance in the cadences, idioms, and narratives of their everyday lives, messages are easier to process, more trustworthy, and more actionable.

Practically, these findings suggest that language choice is not a cosmetic production detail but a core design decision that shapes efficacy and equity. In multilingual rural settings, monolingual mass campaigns risk privileging already advantaged groups and leaving behind communities with lower proficiency in the broadcast lingua franca. By contrast, multilingual strategies can narrow information gaps, enabling households with lower literacy or limited schooling to access and internalize preventive health guidance. In this sense, **multilingual health advertising is an equity intervention**: it redistributes communicative power so that life-saving messages reach those who need them most in a form they can use.

The study also points to implementation pathways. First, “translation” must be elevated to **co-creation**: scripts should be developed with community input, incorporate local metaphors and humor, and feature recognizable faces (e.g., village health workers or respected elders). Second, message architecture benefits from **edutainment formats**—short serial storylines and testimonials—aired at predictable times and repeated enough to build familiarity. Third, mass media should be **braided with interpersonal channels**: TV exposures that cue conversations with ASHA/ANM workers, self-help groups, and school health clubs can convert awareness into durable practice. Finally, monitoring should track not only gross rating points but **behavioral indicators** and **equity metrics** (e.g., effects by gender, caste/tribe, and minority language groups).

We acknowledge limits—self-report bias, an eight-week exposure window, and heterogeneity in TV access—but these strengthen rather than weaken the central inference: even under conservative conditions, multilingual campaigns generated substantial gains. Future work should examine persistence over 6–12 months, cost-effectiveness (cost per

additional household adopting target practices), and optimal media mixes (e.g., pairing TV with community radio, IVR calls, or WhatsApp voice notes for ultra-low-literacy audiences). Methodologically, designs leveraging **cluster randomization**, **A/B testing of dialect variants**, and **sentinel households** for longitudinal observation can refine estimates of impact and spillover.

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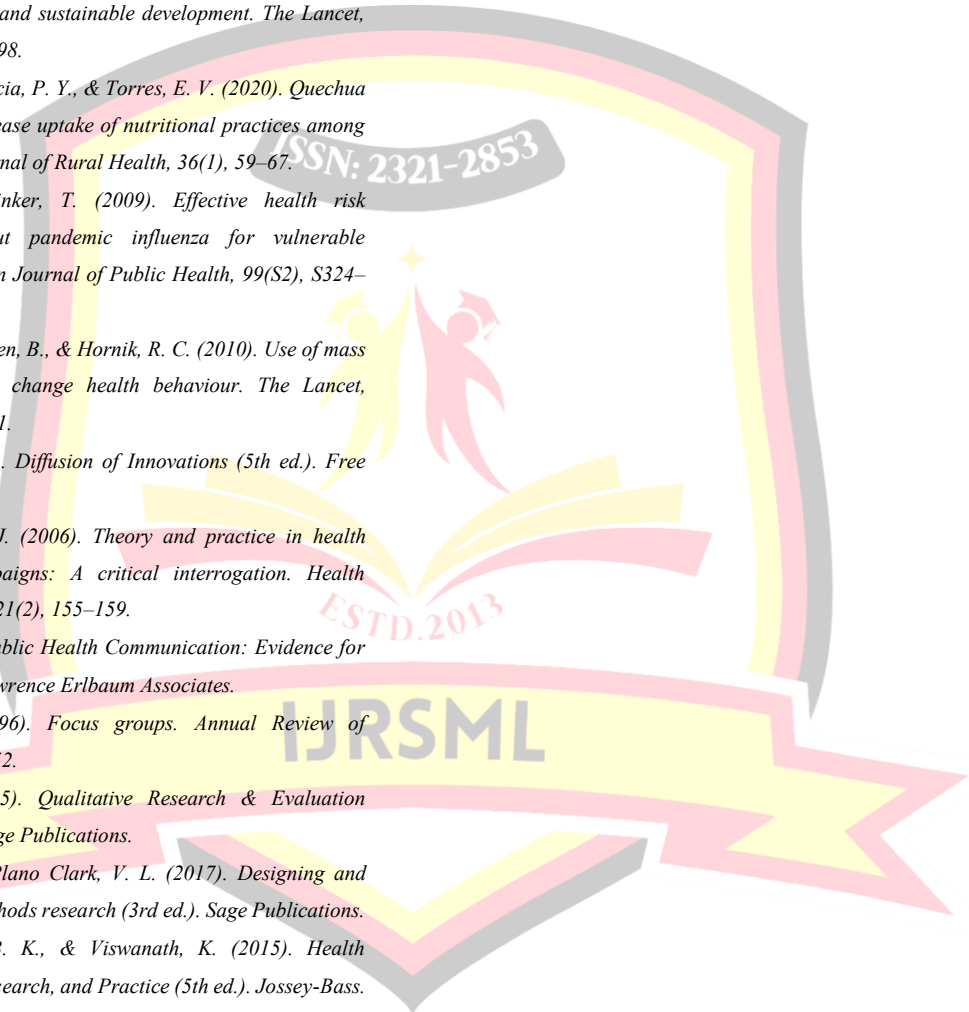
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