

Addressing Vaccine Hesitancy through Debunking Misinformation: Evidence from Germany and Bangladesh

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- **Global Challenge:** Vaccine hesitancy remains a critical barrier to global immunization efforts.
- **Impact of Misinformation:** Misinformation fuels vaccine hesitancy by amplifying doubts and reducing trust in health authorities.
- **COVID-19 Context:** The COVID-19 pandemic amplified vaccine hesitancy due to misinformation and mistrust in vaccine efficacy.
- **Research Gap:** Limited experimental evidence comparing developed and developing country contexts.
- **Key Question:** How does debunking misinformation and providing efficacy-related information affect vaccine acceptance?

Research Questions

- ① What is the effect of debunking rumors on vaccine acceptance?
- ② How does vaccine efficacy and origin information influence preferences?
- ③ How do these impacts differ between Germany (developed) and Bangladesh (developing)?

Experimental Design

- **Platform:** LimeSurvey (Online)
- **Participants:**
 - Germany: Recruited via Cologne Laboratory for Economic Research (356 participants; mean age: 26 years, 46% female)
 - Bangladesh: Recruited via Facebook and email outreach (232 participants; mean age: 25 years, 39% female)
- **Timeline:** January 2021 (pre-vaccine availability to the general public)
- **Randomized Groups:**
 - **Group 1:** Debunked rumor (BBC news articles in localized languages)
 - **Group 2:** Vaccine efficacy & origin information (infographic with WHO data)
 - **Group 3:** Control

Key Results: Debunked Rumor

- **Overall Impact:**

- **Germany:** 22.3% increase in willingness to vaccinate.
- **Bangladesh:** No significant effect.

- **Gender Dynamics:**

- Women in both countries showed higher resistance to misinformation debunking.

- **Implication:** Trust in communication sources and cultural factors influence efficacy.

Key Results: Efficacy & Origin Information

- **Preference Shifts:**

- Higher acceptance of high-efficacy vaccines (Pfizer, Moderna, Sinovac).
- **Bangladesh:** 9.1% increase in Sinovac preference.
- **Germany:** Moderate preference shifts.

- **Reduced Preference:**

- Decline in mid-efficacy vaccine choices (Oxford/AstraZeneca).

- **Implication:** Transparent, comparative data shapes vaccine preferences.

- **Literature Contribution:**

- Comparative evidence from developed and developing countries.
- Highlights socio-cultural factors in vaccine hesitancy.

- **Policy Implications:**

- Culturally sensitive public health messaging.
- Gender-responsive strategies to address trust gaps.
- Effective use of comparative efficacy information in campaigns.

- **Findings:** Debunking misinformation and presenting efficacy data influence vaccine acceptance differently across contexts.
- **Actionable Insight:** Tailored communication strategies are essential for addressing vaccine hesitancy globally.
- **Next Steps:** Further research on long-term effects of interventions and broader cross-country comparisons.

Thank You!