

## Improving Hygiene Practices Among Local Food Handlers and Small Food Stall Workers through Health Education: A Community-Based Approach on Satiana Road, Faisalabad.

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### Abstract

This study examined the effect of structured health education on hygiene practices among small food stall workers on Satiana Road, Faisalabad. A quasi-experimental pre-post intervention design was employed with 60 food handlers selected through purposive sampling. Baseline hygiene practices were observed, followed by an educational intervention focusing on handwashing, utensil cleanliness, food storage, and waste disposal. Post-intervention assessment showed statistically significant improvement ( $p < .05$ ) in all indicators: handwashing with soap (30% to 78%), cleaning utensils daily (40% to 83%), covered food storage (38% to 75%), and proper waste disposal (35% to 80%). The findings highlight that community-based education is an effective, low-cost approach to improving food safety and reducing foodborne disease risks among informal vendors.

**Keywords:** Food hygiene, health education, street vendors, foodborne illness, Pakistan

### Introduction and Literature

Foodborne illnesses affect 600 million people globally every year, leading to 420,000 deaths (World Health Organization [WHO], 2021). Street food vendors in developing countries often lack hygiene knowledge, contributing to outbreaks of diarrhea, typhoid, and hepatitis A (Grace, 2015). Studies in Bangladesh, India, and Nigeria have reported consistent gaps in handwashing and equipment sanitation among vendors (Islam, Alam, & Hasan, 2020; Singh, Gupta, & Patel, 2019). In Pakistan, more than 70% of food vendors have never received any training in hygiene practices (Khan, Farooq, & Tariq, 2022). In cities like Faisalabad, roadside food stalls are popular but often operate in unsanitary environments without proper waste disposal or food storage facilities. Health education interventions have shown promising results in improving hygiene practices. In Kenya, a two-week program led to a 40% rise in compliance (Otieno & Njeri, 2017). In Rawalpindi, Ahmed and Fatima (2020) reported significant improvement in handwashing and utensil cleaning after targeted training. Despite these findings, Satiana Road—a major food hub in Faisalabad—had no documented hygiene-focused study, highlighting a critical gap addressed by this research.

### Methodology

A quasi-experimental pre-post intervention study was conducted among 60 food stall workers on Satiana Road, Faisalabad. Participants were adults (18+), active food handlers, and gave consent to participate.

### Data Collection:

Baseline practices were observed using a structured checklist assessing:

- Hand hygiene
- Utensil cleanliness
- Food storage
- Waste disposal

A one-day health education session was conducted using posters, demonstrations, and verbal instruction in the local language.

### Data Analysis:

Pre-and post-intervention scores were analyzed using paired t-tests via SPSS v25. Validity of the tool was ensured through expert review and pilot testing. Ethical approval was obtained from the institutional review board, and confidentiality was maintained.

Results

**Demographic characteristics:** Most participants (68%) were male, aged 25–45, with no formal hygiene training (82%).

Practice improvement:		
Hygiene Practice	Pre (%)	Post (%)
Handwashing with soap	30	78
Cleaning utensils daily	40	83
Covered food storage	38	75
Waste properly disposed	35	80
Paired t-tests revealed statistically significant improvement ( $p < .05$ ) in all practices.		

Discussion

The study confirms the effectiveness of structured health education in improving food hygiene practices among small food stall workers. Similar to findings in Kenya and Rawalpindi (Otieno & Njeri, 2017; Ahmed & Fatima, 2020), the intervention significantly improved handwashing, utensil cleaning, and waste disposal behaviors. Strengths include the community-based approach, real-time observation, and culturally adapted materials, which ensured relevance and high participation. Limitations included a small sample size, short follow-up duration, and low representation of female workers. Future studies should include longitudinal assessments and broader geographic coverage.

Limitations and Suggestions

- Short duration of follow-up limited long-term behavioral assessment.
- Only one location (Satiana Road) was studied, reducing generalizability.
- Future programs should integrate periodic training and monitoring by local health departments.

Conclusion

Health education significantly improved hygiene practices among food handlers on Satiana Road. The intervention offers a cost-effective and replicable model for reducing foodborne illness risks in informal food sectors across Pakistan.

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