









RESEARCH ARTICLE

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Design, delivery, and determinants of uptake: findings from a food hygiene behavior change intervention in rural Bangladesh

Shafinaz Sobhan^{1,2*} , Anna A. Müller-Hauser^{1,2,3} , Tarique Md. Nurul Huda⁴ , Jillian L. Waid^{2,3} ,
Om Prasad Gautam⁵ , Giorgia Gon⁶ , Amanda S. Wendt^{2,3}  and Sabine Gabrysch^{1,2,3} 

Abstract

Background: Microbial food contamination, although a known contributor to diarrheal disease and highly prevalent in low-income settings, has received relatively little attention in nutrition programs. Therefore, to address the critical pathway from food contamination to infection to child undernutrition, we adapted and integrated an innovative food hygiene intervention into a large-scale nutrition-sensitive agriculture trial in rural Bangladesh. In this article, we describe the intervention, analyze participation and uptake of the promoted food hygiene behaviors among intervention households, and examine the underlying determinants of behavior adoption.

Methods: The food hygiene intervention employed emotional drivers, engaging group activities, and household visits to improve six feeding and food hygiene behaviors. The program centered on an 'ideal family' competition. Households' attendance in each food hygiene session was documented. Uptake of promoted behaviors was assessed by project staff on seven 'ideal family' indicators using direct observations of practices and spot checks of household hygiene conditions during household visits. We used descriptive analysis and mixed-effect logistic regression to examine changes in household food hygiene practices and to identify determinants of uptake.

Results: Participation in the food hygiene intervention was high with more than 75% attendance at each session. Hygiene behavior practices increased from pre-intervention with success varying by behavior. Safe storage and fresh preparation or reheating of leftover foods were frequently practiced, while handwashing and cleaning of utensils was practiced by fewer participants. In total, 496 of 1275 participating households (39%) adopted at least 5 of 7 selected practices in all three assessment rounds and were awarded 'ideal family' titles at the end of the intervention. Being an 'ideal family' winner was associated with high participation in intervention activities [adjusted odds ratio (AOR): 11.4, 95% CI: 5.2–24.9], highest household wealth [AOR: 2.3, 95% CI: 1.4–3.6] and secondary education of participating women [AOR: 2.2, 95% CI: 1.4–3.4].

*Correspondence: shafinaz.sobhan@charite.de

¹ Institute of Public Health, Charité – Universitätsmedizin Berlin, corporate member of Freie Universität Berlin and Humboldt-Universität zu Berlin, Charitéplatz 1, 10117 Berlin, Germany

Full list of author information is available at the end of the article



Conclusion: This intervention is an example of successful integration of a behavior change food hygiene component into an existing large-scale trial and achieved satisfactory coverage. Future analysis will show if the intervention was able to sustain improved behaviors over time and decrease food contamination and infection.

Keywords: Child feeding, Behavior adoption, Implementation, Emotional driver