

Improved health and behaviour through integration of food hygiene and WASH

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A participant in the Hygienic Family project

Rationale

Diarrhoeal disease remains one of the leading causes of death and illness in children under five, with approximately 424,000 deaths worldwide annually (Walker et al., 2013; WHO, 2019). Malawi has a diarrhoeal disease prevalence of 22% in children under five (NSO, 2017), which is often associated with poor water, sanitation, and hygiene practices, and the contamination of the environment with faeces from poor practices in which children live and play (Pickering et al., 2019).

Interventions that aim to reduce child exposure to faeces (both human and animal) have traditionally focused on infrastructure, (e.g. toilets, drinking water and hand washing facilities) and handwashing with soap. However, there is growing evidence contaminated foods also have an important role to play (Woldt, 2015; Chidziwisano, et al., 2019a; 2019b), with 40% of the foodborne disease burden falling on children under the age of five (WHO, 2015).

However, there has been little integration of food hygiene in traditional WASH or nutrition programmes despite its important place in potentially reducing diarrhoea (Null et al., 2018; Gautam et

POLICY BRIEF

Key messages

- Children in rural Malawi live in environments heavily contaminated with pathogens that cause diarrhoea
- Food hygiene and animal stool management are neglected areas of hygiene in research and programming
- Improving food hygiene through behaviour change can significantly reduce diarrhoeal disease and should be integrated into programmes on water, sanitation and hygiene (WASH) and nutrition
- Building social capital and relationships through use of existing community structures is integral to achieving sustained behaviour change in WASH, food hygiene and nutrition interventions

Written by:

Tracy Morse
Kondwani Chidziwisano
Marni Brennan
Elizabeth Tilley
Rossanie Malolo

al., 2017). To assess this potential route for controlling diarrhoea, the Hygienic Family (Banja la Ukhondo) study was conducted in rural Malawi by the WASHED centre based at the Malawi Polytechnic in collaboration with the University of Strathclyde. This behaviour-centred, context-appropriate intervention integrated improved food hygiene and WASH practices, addressing both infrastructure and behaviour to achieve reductions in childhood diarrhoea (Morse, et al., 2019).



The Hygienic Family for a good life

The Hygienic Family (Banja la Ukhondo) trial

The study was carried out in the rural district of Chikwawa in southern Malawi, which has a population of 564,684, of which 16% are under the age of 5 years (NSO, 2016; 2018). The study was grounded in the RANAS (Risk, Attitude, Norms, Ability and Self-regulation) Model (Mosler, 2012) and was implemented in four stages:

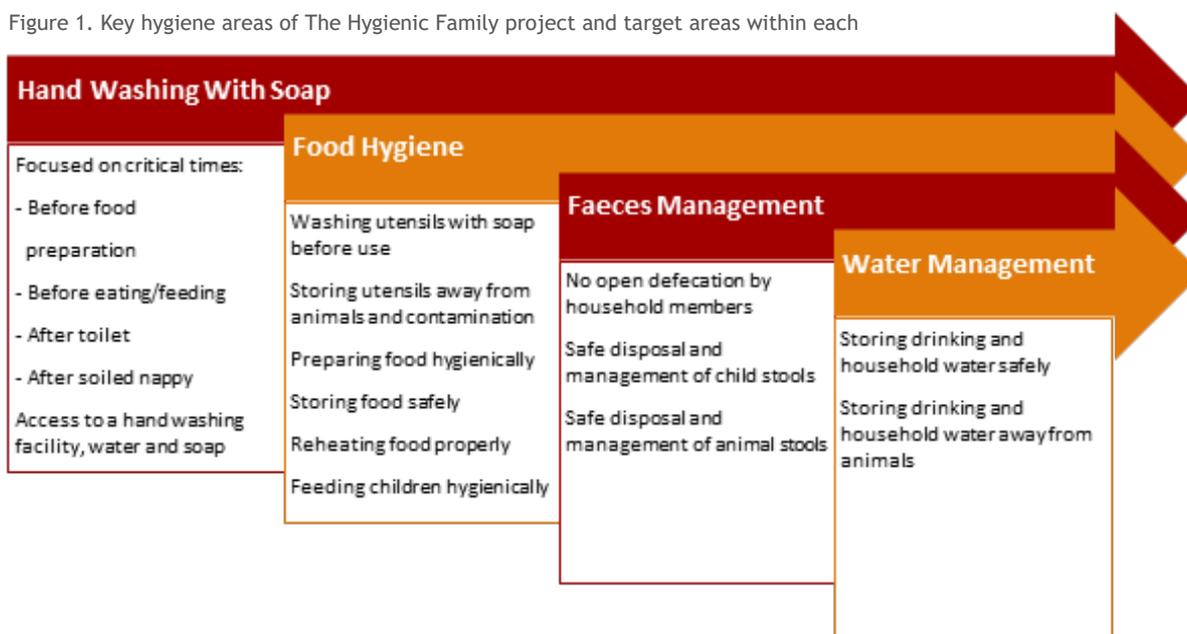
Formative research 9 months of research identified 4 key hygiene areas (Figure 1): hand washing with soap, food hygiene, faeces management and water management. All members of the family needed to be involved hygiene improvements to achieve success.

Intervention development The Hygienic Family (Banja la Ukhondo) intervention was developed using the RANAS model to identify and develop behaviour change strategies for the 4 hygiene areas.

Intervention delivery Targeting children under 5 years and their caregivers, the intervention was delivered for 9 months through existing community health workers and volunteers with supervision. Community events, child caregiver group meetings and household visits were used as channels of communication, education and social networking.

Evaluation Study participants were assigned to groups that either received an intervention (treatment groups) or received no intervention (control group). Diarrhoeal disease was measured as the presence of illness in the two weeks leading up to data collection at the start and end of the study in both the treatment and control groups. Food hygiene behaviours were measured through direct observations and through participant self-reporting.

Figure 1. Key hygiene areas of The Hygienic Family project and target areas within each



Findings

At the start of the study, the treatment and control areas all had an incidence of diarrhoea of about 40%. As the children aged over the course of the intervention, the incidence of diarrhoea reduced over time in both control and treatment areas.

However, the reduction was greatest in the treatment areas, with a reduction of 13 percentage points in the treatment areas. Further analysis took into account the variation in household characteristics (i.e. income, family size, etc.). This showed that the only significant predictor of the reduction in diarrhoea was the intervention itself, and it was not related to any demographic characteristics that we measured or could control for.

Our interventions also led to increased and improved infrastructure and practice for handwashing with soap, keeping kitchen utensils on an elevated place and cleaning of utensils with soap in treatment areas.



The Hygienic Family study achieved a 13 percentage point decrease in diarrhoea in treatment areas.

Recommendations

1

Given the significant role that food plays in the transmission of diarrhoeal diseases and under-nutrition in low and middle-income countries (LMICs), food hygiene behaviour change approaches should be incorporated in existing related policies and strategies.

2

Programme implementers should identify and integrate behaviour change techniques that effectively altered significant behaviours in existing community Nutrition and WASH programmes (e.g. Community Led Total Sanitation (CLTS) and Scaling Up Nutrition (SUN)). This study provides insights on appropriate actions required to address barriers related to food hygiene practices in this setting.

3

More effort is needed to evaluate and assess the sustainability of WASH, food hygiene and behaviour change interventions over longer periods.

4

Community based implementation methods for interventions should consider the added value of non-WASH and hygiene benefits such as improved social relationships, empowerment, and community social capital, which can benefit other developmental activities.

“Food hygiene behaviour change approaches should be incorporated in existing related policies and strategies.”

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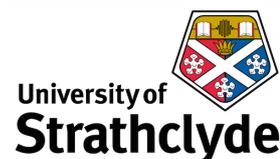
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Contributors



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