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Handwashing campaign design following a systematic framework

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PUBLISHER

WEDC, Loughborough University

VERSION

VoR (Version of Record)

LICENCE

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REPOSITORY RECORD

Kharal Chettry, Laxman, and Praksh Bohara. 2021. "Handwashing Campaign Design Following a Systematic Framework". Loughborough University. <https://hdl.handle.net/2134/16929478.v1>.

42nd WEDC International Conference
ONLINE: 13 – 15 September, 2021
**EQUITABLE AND SUSTAINABLE WASH SERVICES:
FUTURE CHALLENGES IN A RAPIDLY CHANGING WORLD**
**Handwashing campaign design following systematic
framework**

L. Kharal & P. Bohara

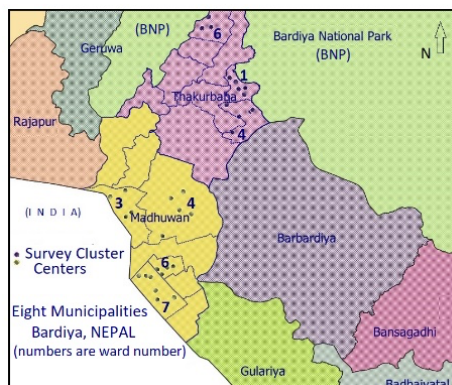
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Introduction

A model for social and behaviour change being tested by Terre des hommes (tdh.ch) in its South Asia WASH program was presented in 2015 WEDC conference (Kharal, 2015). Core elements of the model comprised of the framework of ‘Social Marketing’ as proposed in (Lee, 2012) and the use of ‘Behavioural Factors’ of RANAS (Risk, Attitude, Norm, Ability and Self-Regulation) proposed in (Mosler, 2012). The model has been further developed by incorporating concepts of ‘behavioural economics’ and ‘innovative-empathetic-design’ processes. The model is comprehensive now to implement behavioural change interventions more systematically. Tdh is applying the model in its handwashing promotion interventions in Bardiya district of Nepal under the Swiss Water & Sanitation Consortium (waterconsortium.ch) project. In this paper, Tdh presents how it carried out the baseline survey and used its outcomes in the development of the interventions we piloted and how the major elements of our model are used.

Baseline survey

Based on the experience of similar surveys by Tdh carried out in 600 households of Badhaiyatal, Bansgadi and Barbardiya municipalities in Bardiya in 2019, the baseline survey in 2020 covered 160 households in the area where Tdh piloted the intervention – wards 3, 4, 6 and 7 of Madhuban municipality and wards 1, 4 and 6 of Thakurbaba municipality. Distribution of the 160 households in the seven survey-wards was done in numbers proportionate to the population of the wards. For selection of households, 32 random points were generated in the inhabited part of the ward map and five households nearest to these 32 random points were surveyed. The 32 random points are shown on the adjacent map labelled as ‘survey-cluster-centres’. In Thakurbaba, there are three points in ward 6, and five points each in wards 1 and 4. In Madhuwan, there are four points in each wards 3 and 6, five points in ward 4 and six points in ward 7.


Figure 1

In terms of content, the survey questionnaire developed in *kobotoolbox.org* covered questions on – (a) demographic and socioeconomic information; (b) general status of WASH; (c) prevalence of handwashing with soap – *after* (i) defecation, (ii) cleaning a child’s faeces, and (iii) cough/sneeze; *before* (iv) eating, (v) preparing food and (vi) feeding child; and *on* (vii) entering house after shopping; (d) nine behavioural factors from Risk, Attitude, and Norm – (i) Risk-Vulnerability (extent considered likely to get sick by not washing hands), (ii) Risk-Severity (extent considered likely to be severe on becoming sick by not washing hands), (iii) Attitude-Time-taking (extent handwashing considered to be time-taking), (iv) Attitude-Effortful (extent handwashing considered to be effortful), (v) Attitude-Expensive (extent handwashing considered to be expensive), (vi) Attitude-Like (extend handwashing liked), (vii) Norm-Descriptive-handwashing (number of relatives and neighbours considered to be washing hands regularly), (viii) Norm-Descriptive-keeping-soap-water (number of relatives and neighbours considered to be always keeping soap and water for handwashing), and (ix) Norm-Injunctive-HWS (number of important people considered to be approving hand washing station (HWS) or washbasin); and (d) handwashing place with soap and water. In order to objectively analyse the outcome of the survey, multiple choice questions related to (c) and (d) on handwashing-prevalence and behavioural-factors were provided with choices in five point scale of 0, 1, 2, 3, and 4.

Survey outcome and test intervention design

Important outcomes from the baseline survey incorporated in the design of the pilot intervention are: (a) About 92 % of the households wash their hands at the water source (that are mostly tube-wells) itself; (b) The prevalence of handwashing with soap as shown in the adjacent table is comparatively less after cleaning child’s faeces (78.7%) and before feeding the child (76.1%); (c) Of the nine behavioural factors surveyed, the following are with greater potential to contribute in changing the behaviour – Risk-Vulnerability (cc=-0.5; R^2 -0.25), Risk-Severity (cc=0.4; R^2 -0.14), Attitude-Expensive (cc=-0.3; R^2 -0.09) & Norm-Descriptive-Handwashing (cc=0.3; R^2 -0.09) [cc is the Pearson Correlation Coefficient of the factors with aggregate hand washing score].

Table 1. Handwashing at key moments					
Category	A: Defecation	B: Eating	B: Food preparation	A: Cleaning child's faeces	B: Feeding child
0: Never			1	6	6
1. Sometime	9	12	18	14	18
2. Half of the time	9	15	18	15	15
3. Most of the time	25	51	54	48	53
4. All the time	116	81	68	52	43
No child experience				24	24
Grand total	159	159	159	159	159
Aggregate score	91.2	85.3	81.4	78.7	76.1

Key: A = After, B = Before

Based on these survey outcomes, Tdh developed the following positioning statement for the intervention – **we wish “mothers and household heads” to see “making and using hand washing station in the kitchen” as “facilitating easy and frequent hand washing and enhancing health of children and other member by preventing disease”.** Based on this a two-pager guide was developed to pilot the intervention covering activities and strategies based on social marketing, social norms, theory of diffusion-of-innovation, user-centred-design, behavioural-economics, and communication. The intervention had two objectives to: (1) increase knowledge that: (a) hands should be more frequently washed with soap particularly after washing a child’s bottom and before feeding a child; (b) as washing hands frequently is not possible at the tube-wells, making hand-washing-stations (as shown in the photo) is a feasible solution that would help to develop the habit of frequent hand washing as well as to save time and water; and (c) faeces of children can pose more risk than that of adults; and (2) increase (a) the number of hand washing stations with soap and water and (b)

frequency of hand washing than during the baseline. [The two-pager guide along with further information on the first baseline survey and different aspects of the model are covered in Kharal (2020)].



Test intervention outcome and work ahead

Our field team implemented the pilot intervention mobilizing female-community-health-volunteers and local actors covering the entire households of a *tole* (village) at a time. A *tole* is a semi-formal administrative unit smaller than the ward comprised of about 35 to 60 households. The intervention has been carried out in ten *toles* and about 500 households from these *toles* have installed handwashing stations through their own investment. An understanding has been signed with the two municipalities for scaling the intervention through their leadership. Tdh also carried out a workshop generating innovative ideas to be incorporated in the strategy for taking ahead the initiative in the form of a campaign named '*saafa-hath abhiyan* (clean-hands campaign)'. One of the ideas that was raised strongly in the workshop was to develop a campaign following total-coverage-approach in line with the past Nepal open defecation free (ODF) model. Ideas will also be generation from the target audience following a user-centred-innovate-design-process to further inform the strategy. Periodic reviews and evaluations with qualitative and quantities methods with follow up adjustments of the strategy based on a user-centred-design approach will be the primary focus while the program unfolds to optimize the intervention for achievable effectiveness and efficiency.

Reference

- Kharal, L. (2020). "Formative Research" For Systematic Behavior Change Program Design. PsyArXiv. May 16. <https://doi.org/10.31234/osf.io/bpqfw>
- Kharal, L. (2015). *Mainstreaming social marketing in the WASH interventions of Terre des hommes in South Asia*. 38th WEDC International Conference, Loughborough, UK, 27-31 July 2015, 5pp.
- Lee N.R and Kotler P (2012). *Social Marketing, Changing Behaviours for Good*, Fifth Edition, SAGE Publications, Inc.
- Mosler, H-J (2012). *A systematic approach to behaviour change interventions for the water and sanitation sector in developing countries: a conceptual model*, a review, and a guideline (Eawag), International Journal of Environmental Health Research.

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