| **Criterion** | **Example of text related to this criterion** | **Rating** |
| --- | --- | --- |
| **Criterion #1**  **Intervention Characteristics:** Intervention/Program source (From CFIR, Damschroder, 2009)2  **Explanation/Example:**  Is the intervention/program externally or internally developed? An intervention/program may be internally developed as a good idea, a solution to a problem, or other grass roots effort, or may be developed by an external entity (such as a foundation or a NGO). Interventions or programs that arise internally from the populations who will be impacted are sometimes more sustainable than externally developed programs dependent on external funding. The perceived legitimacy of the source may also influence implementation. | The field work was done by Health Oriented Preventive Education (HOPE), a local non-governmental organisation that operates health clinics and undertakes community-based health and development initiatives in the  area.  *(Indicates the intervention was developed externally)* | Fair |
| **Criterion #2**  **Intervention Characteristics:** A description of why the intervention was hypothesized to have an impact on the outcome, according to theory. (From CReDECI, Mohler 2012; also mentioned in Michie, 2009)3,4  **Explanation/Example:**  The theoretical basis of the intervention should be clearly stated. This includes the theory on which the intervention is founded as well as, if available, empirical evidence from studies in different settings or countries. For example, "The implementation was based on Rogers’ Diffusion of Innovation theory, which posits 5 factors of innovation that influence a decision to adopt or reject an innovation: relative advantage, compatibility, complexity or simplicity, trialability, observability. A similar intervention, also based on Rogers’ Diffusion of Innovation theory, was successfully implemented in other countries." | No text was found. | Poor / None |
| **Criterion #3**  **Intervention Characteristics:**  Rationale for the aim/essential functions of the intervention/program’s components, including the evidence whether the components are appropriate for achieving this goal.  This differs from the need to articulate the theory behind the intervention in that the theory posits the general principles (such as Rogers Diffusion of Innovation) while this item is about specific components of the intervention and the effects of the component on specific targets. (From CReDECI, Mohler, 2012; also mentioned in Michie, 2009)3,4 | No text was found. | Poor / None |
| **Criterion #4 Criterion #4**  **Outer Setting:** External policies and incentives (From CFIR, Damschroder, 2009)2  **Explanation/Example:**  How does the health service, intervention, or program relate to country and global health goals? Is the program part of a larger strategy? If so how is it strategically aligned? A country's health policies may influence the implementation of a particular intervention or program. | No text was found. | Poo/none |
| **Criterion #5**  **Intervention Characteristics:**  Detailed description of the intervention/program (From WIDER as described in Michie, 2009)4  **The detailed description should include:**  a. Characteristics of those delivering the intervention/program (such as a nurse or lay health worker)  b. Characteristics of the recipients  c. The setting  d. The mode of delivery (such as face-to-face) | There is mention of the field workers: “Field workers, recruited from the study or nearby communities, were extensively trained in interviewing techniques, in data recording, in general approaches to community motivation and in specific techniques for promoting hand washing and drinking water treatment. The same field workers promoted regular use of the interventions and collected outcome data during their household visits.”  Table 1 has summary statistics on the study sample divided by intervention status. Characteristics include average household size, number of children less than 5 and less than 2 years old, number of rooms in house, literacy of the mother, occupation of the father, and average expenditures on water per week, etc.  The setting is described as “This study was conducted in adjoining multi-ethnic squatter settlements in central Karachi – Bhittaiabad, Bilal Colony, Mujahid Colony, Manzoor Colony and Zia Colony.” Later it mentions “Field workers identified communities that typically received at least one hour of running water twice weekly, and had not received soap or water treatment in a previous study with HOPE.  The intervention is delivered face-to-face. “Field workers arranged neighbourhood meetings. They used slide shows, videotapes and pamphlets to illustrate health problems resulting from hand and water contamnation and to provide specific instructions on how to use the intervention assigned to that neighbourhood. Field workers, who spoke the first language of the study subjects, visited each participating household at least twice weekly. They encouraged use of the interventions, answered questions, and provided families with the consumable supplies necessary for ongoing use of the intervention”. | Good  Good  Good  Good |
| e. The intensity of the intervention/program (such as the contact time with participants)  f. The duration (such as the number of sessions and their spacing interval over a given period)  g. Adherence or fidelity to delivery protocols | This is not expressly mentioned in terms of length of visits, but on page 481 it mentions that visits to control households were generally shorter since no health education or encouragement for behavior change was provided. It writes, “Field workers visited participating households at least weekly, for 37 weeks (April 2003-December 2003), and asked the mother or other caregiver if the children had diarrhea (three or more loose stools within 24 h) in the preceding week, and, if so, for how many days. The mother was also asked about her own symptoms of diarrhea. Typically, field workers visited each household twice during the week to ensure that episodes of diarrhoea from both early and late in the week were recalled.”  Again, this might be answered by e. above.  Delivery protocols in terms of whether the correct intervention was delivered including proper health messages is not addressed, but seemingly such issues would be discovered during checks to confirm diarrheal outcome measures: “Supervisors revisited 40% of homes each week and reviewed the history of diarrhoea among family members. The history recorded by the supervisor was compared to the history recorded by the field worker, and if there was a discrepancy, the fieldworker and supervisor revisited the house to clarify the difference.”. | Good  Good  Fair |
| **Criterion #6**  **Intervention Characteristics:**  Costs of the intervention and costs associated with implementing the intervention (From CFIR, Damschroder, 2009; CReDECI, Mohler, 2012)2,3  **Explanation/Example:**  The cost of the intervention and implementation can influence the adoption and sustainability; interventions maybe more difficult to sustain if they were supported as part of a research study. | Costs are not calculated nor considered in detail. However, again this appears to be an earlier stage efficacy trial that argues for further study and such considerations to be taken into account. | Poor / None |
| **Criterion #7**  **Population needs**  (From CFIR, Damschroder, 2009)2  **Explanation/Example:**  The extent to which population needs, as well as barriers and facilitators to meet those needs, are accurately known and prioritized. This could include population-based data on causes of morbidity and mortality, political or cultural barriers or facilitators, and/or more locally focused data about local needs, barriers or facilitators. | The only description of population needs was that diarrheal diseases are a leading cause of childhood death in squatter settlements such as the ones they study. | Poor |
| **Criterion #8**  **Process of implementation:** Description of facilitators or barriers which have influenced the intervention or program’s implementation (see #10) revealed by a process assessment.  In contrast to the criterion #7 above which assesses barriers and facilitators as inputs to developing the intervention strategy, this criterion assesses the actual barriers and facilitators identified during and after the implementation.  (From CReDECI, Mohler, 2012; also mentioned in Michie, 2009)3,4  **Explanation/Example:**  "The attitudes of the nursing home managers turned out to be an important factor supporting or impeding the success of the intervention's implementation. The more the managers agreed with the interventions’ aim, the better the nursing staff felt supported." | No text found. | Poor / None |
| **Criterion #9**  **Description of materials:** Description of all materials or tools used for the implementation  (From CReDECI, Mohler, 2012)3  **Explanation/Example:**  "The primary enablers of behaviour change were paid community-based health workers, who were recruited from the local community based on 12 years or more of education,  proficient communication and reasoning skills, commitment towards community work, and references of community stakeholders. They received a combination of classroombased and apprentice ship-based field training over 7 days on knowledge, attitudes, and practices related to essential newborn care within the community, behaviour change management, and trust-building. After training, suitable candidates were closely mentored and supervised by a regional programme supervisor (n=4) responsible for 6–7 trainees, for an additional week before final selection was made." | There is great detail on a biologic/scientific level in terms of the chemical products and soap distributed, but there is only passing reference to “messages” given to households to reinforce the importance of water treatment without further detail on these informational or educational components. | Poor |
| **Criterion #10**  **Process of Implementation:** Description of an assessment of the implementation process  (From CReDECI, Mohler 2012)3  **Explanation/Example:**  Process assessment is a prerequisite for determining the success of the intervention's implementation and should be an integral part of an assessment of the intervention’s effect. For example, "To gain insight into the dissemination and the delivery of the intervention and to draw conclusions about potential barriers and facilitators to implementing the intervention in other settings, data on the implementation process were collected alongside the randomized-controlled trial. Therefore, we assessed the quality of delivery of the interventional components (observed by members of the research team not involved in the delivery of the intervention) and the adherence to study protocol (number and type of deviations from the protocol, using a pilot-tested standardized form). We also analyzed barriers and facilitators for the delivery of intervention’s components (focus group interviews with intervention participants)." | Authors expressly write that outside of an RCT that included free supplies and twice weekly visits adherence to water treatment and hand washing would likely be much less. Say the next step is to implement them at larger scale and evaluate their practicality, uptake and effectiveness. | Poor |