

Children as Agents of Change
Children's role in influencing health and nutritional practices
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Summary and Background

Over the past 30 years there has been increased research and literature documenting the benefits, and best practice in the field of child and youth participation (O'Kane, 2003, Save the Children, 2014).

There has also been increased recognition in the children's ability to act as agents of change. By agents of change we mean the way in which children can influence change in different social environments (Onyango-Ouma, 2000). The concept involves viewing children as competent social actors, able to influence the behaviours of their peers and wider community.

As a result, many Governments and organisations have been developing and implementing projects that support children and the community to influence health, nutrition and hygiene behaviours.

However, since the introduction of these types of projects that intend to support children and young people to influence behaviour change, there have not been many studies that have robustly evaluated the impact.

Aims and Approach for this Rapid Sift

This rapid sift brings together the available information relating to the impact of enabling children to influence behaviour change in the field of health, nutrition and hygiene. The scope of this study has been limited to these three areas and only papers published between October 2005 and May 2016 were included.

Readers must be aware that this is a small study, ten days in scope and we have not included October 2005 and May 2016 were included.

Readers must be aware that this is a small study, ten days in scope and we have not included detailed information on issues such as the quality of the children's engagement with the projects or detailed information on the children involved in the study. These are themes, that could be identified in future research.

The information obtained through this study will be used to:

- Inform the work of Children for Health and in particular the PCAAN approach to nutrition education in Mozambique. PCAAN is an acronym for Children's Participation in Learning and Action for Nutrition
- Identify and understand current research on how children influence health behaviours with a view to shaping and improving our understanding and identify gaps in research
- Identify promising qualitative methodologies that have been used, or could be used to evaluate the impact of children's participation in specific health related projects, including PCAAN.

We aim to explore what is known about:

- The impact directly on children and young people's health and hygiene behaviour
- The wider impact on family, peers, community and society i.e. impact on health services, reduction in number of days children don't attend school due to illness
- The techniques, which enable children to support behaviour change
- The evaluation methodology used to measure impact.

It is important to note that following a preliminary search of the literature; the research questions were broadened to include all material relating to children being supported to influence behaviour change.

This 'rapid sift' of the evidence is the result of a one day workshop at the Children for Health office and 10 further days spent on:

1. A structured search of the literature using key academic databases.
2. Search terms used included;
 - a. Children; child, young person
 - b. Agents; influence
 - c. Behaviour
 - d. Change
 - e. And health, or nutrition, or hygiene
3. Discussions with key informants, which we used to identify key work and ensure findings, were interpreted correctly (a list is in appendix A).
4. Review and revisions with four experts in child focussed research, programming and participation.

Findings

Impact of behaviour change project on children and young people

The studies identified below provide information about the impact of children's involvement of behaviour change programmes on the children and young people involved in the study.

Brian and Curtis et al (2014) *SuperAmma* study examined the effect of a behaviour-change intervention on handwashing with soap in India. This study tested whether a scalable village-level intervention based on emotional drivers of behaviour, could improve handwashing behaviour in rural India. The intervention included community and school-based events incorporating an animated film, skits, and public pledging ceremonies. One key finding was that handwashing with soap by children was generally higher than in adults after the intervention. However, the size and design of the *SuperAmma* study does not allow us to identify the effect of different interventions on children and young people. Nor does it allow for us to understand the impact of children as agents of change influencing others in the family or the community. This is because the transfer of messages from children to family members was not a central part of the *SuperAmma* intervention. The activity, which children took home, was intended as a reminder and to reinforce the messages that would come primarily through the community events.

A study by Mahbub, (2008) was conducted to understand the intensity and significance of participation of women and children in Community Led Total Sanitation (CLTS) Process. Numerous activities such as social maps of villages were used to identify households with and without latrines. The study reported that children were enthusiastic in participating in the activities and helped with developing indicators for monitoring and preventing people from practicing open defecation. As one twelve-year-old boy Munir explained:

We used to observe whether the floor of the latrine in a household was wet or dry. Dry floor indicated that it was not in use. Similarly we also noted the fences were intact or broken down. Intact fences implied that the household was taking care of the latrine as they were using it.

Mahbub clearly documents how the children were involved and noted that that the children especially the adolescent girls often pressurised their parents to install a latrine at their household. They also motivated their relatives and neighbours to do the same. However, it is not clear how the impact of the involvement was evaluated and this cannot be reliably attributed to the children and young people's participation.

A Save the Children (2012) project supporting malaria prevention in Mali combined school based education with the distribution of Long Lasting Insecticide Treated Nets (LLINs). The school-based malaria prevention education included children's "malaria clubs". These were formed in every school to assess and promote mosquito net use at the household level. A 'School Malaria Day' was organised to coincide with the LLIN distribution. The entire community was invited and children performed sketches, poems, songs and demonstrations on how to hang and use the mosquito nets. Each school child also received two LLINs (for himself and for his siblings). The study was evaluated using a Cluster Randomized Control trial (this approach is described later in the evaluation methodology section).

Following the school-based and national universal community-based distribution of LLINs the percent of children reporting sleeping under a mosquito net the previous night increased in both the intervention and comparison schools. However, the use of nets improved significantly more amongst children from the intervention schools and this improvement was sustained for longer. Children's knowledge of malaria, how it is transmitted, and how to prevent it was also significantly higher in the intervention group. This positive behavior change was also associated a reduction in malaria infections. Results also showed that the percentage of children with gametocytes, the form of malaria parasite that can infect other people, was significantly lower in the intervention group. Children's ability to concentrate on a task and sustain their attention for a fixed period of time was also found to be significantly higher amongst children in the intervention schools compared to those in the comparison schools.

In Kenya, Onyango-Ouma et al. 2005 carried out a quasi-experimental methodology to evaluate a programme where children from primary school were given education from their teachers about malaria, diarrhoea and hygiene. Their knowledge and daily practices, as well as their classmates' and guardians' knowledge and practices, were studied before and after the implementation of the health education. The study showed enhanced knowledge about health in all the target groups and the changes in daily practices were more apparent among children than among adults. It also showed changes in both the school and the home environment. The actions taken had impacts on hygiene routines and improved the health awareness.

Impact on family, peers and community

The studies identified below provide some information about the wider impact of children's involvement of behaviour change programmes on families, peers and community.

In Gunawardena, et al (2016) carried out a randomized controlled trial among Sri Lankan mothers with a school-aged child, to assess the impact of school-based interventions on weight, physical activity and diet of their mothers. The intervention group of mothers whose child was educated to be able to act as a change agent in their family showed a statistically significant reduction in weight and increase in physical activity compared with the control group of mothers whose child did not receive any intervention. They also showed a greater reduction of household purchase of biscuits and ice cream. The intervention was directed at children, who were trained to identify risk factors of non-communicable disease (NCD) in their home and persuade their mothers to improve lifestyles. This is among few controlled trials that examined the effectiveness of school-based intervention for NCD risk reduction of parents. The study concluded by stating that a program to motivate students to act as change agents of family's lifestyle was effective in decreasing weight and increasing physical activity of their mothers.

A pilot project in Nepal (Adhikari and Lal Shrestha 2008) entitled 'School Led Total Sanitation' (SLTS) builds on the achievements of another programme, School Sanitation and Hygiene Education (SSHE). It integrates the reward and revolving fund aspects of Basic Sanitation Package (BSP) and featured participatory tools and technical elements of the Community Led Total Sanitation (CLTS) programme. The overall aim of CLTS was to bring total sanitation (100% Open Defecation Free) in targeted school catchment areas. Amongst many other activities, the programme aimed to build children's awareness of better sanitation and hygiene practices. The hygiene education component of the programme focused largely on school children through the establishment of child clubs. Schools also set up a multiple hand-washing tables where the children practiced proper hand washing. Hand washing with soap practice is promoted at great length in schools and in communities. Children were part of a much wider community group taking part in a range of activities.

As a result of the SLTS programme in Nepal, illness has decreased and the trend was to be reported as very evident in the open defecation free (ODF) declared catchments areas. Reported cases of diarrhoea in children under five at one sub-health post decreased from 7% in 2005 to less than 5% in 2007. In addition, girls' enrolment and regular attendance in school had increased after a project intervention was administered. This study also noted that diarrhoeal diseases and worms were no longer the cause of students' absence in schools in the total sanitation declared areas. However, it is not clear what data was used and how these conclusions were drawn.

Furthermore, it is not clear how this data was gathered. In addition, as the study analysed the impact of all of the project components it is impossible to attribute the influence to the children's involvement.

A paper by Olayiwole, Ezirim and Okoro (2003) summarised a programme that promoted sanitation and hygiene education among school children. The aim was to enhance knowledge, change attitudes and develop skills that helped to encourage children to become 'agents of hygiene behaviour change' in their schools, homes and communities. The study noted that children and young people have a vital role to because:

- Children are eager to learn and adapt to new behaviour changes more easily.
- Children in Nigeria play important roles in the household chores, taking care of their younger siblings
- Depending on depth of cultural beliefs of their communities, children may also question existing and hygienic practices in the household.
- Children as future adults and parents can apply lifelong behaviour formed in their lives and passed on to their own children and society.

The school children were actively involved in promoting improved sanitation and hygiene practices in their school and encouraged to reach their household. However, the study did not provide details of how the children and young people were involved nor how the Impact was measured.

A study (Dickman and Melek 2013) on '*children as agents of change in trachoma control*' found that school children supported the implementation of the *World Health Organisation SAFE* strategy in several key ways;

- **Children helped to identify family members who have trichiasis.** Teachers instructed children to go home and ask whether any family members had 'hair in the eye.' Children asked their family members if they knew what caused the condition. Common myths included that trichiasis was the result of a curse or the fault of the individual.
- **Children educated family members about trichiasis.** The children, empowered with information from their teacher, explained that trichiasis is caused by a disease and is

not their fault. Children's views were generally respected by their family, who were proud to have a child that was attending school.

- **Children supported mass drug administration.** They can do so by participating information from their teacher, explained that trichiasis is caused by a disease and is not their fault. Children's views were generally respected by their family, who were proud to have a child that was attending school.
- **Children supported mass drug administration.** They can do so by participating themselves and by encouraging family members to take azithromycin.
- **Children learnt improved hygiene habits.** In schools where water is provided and where there is sufficient health education and mobilisation, children learnt to practice good facial cleanliness and help to monitor the facial cleanliness of other children. In addition, they can care for younger siblings and can be encouraged to clean their faces for them.
- **Improved sanitation.** At school, children learnt how to use latrines and how these latrines can prevent diseases like trachoma. Health clubs at schools teach students about healthier hygiene habits and how to prevent trachoma. Health, trachoma, and environmental sanitation clubs help to organise environmental sanitation campaigns at school and in the community. We also met children who had convinced their families to construct latrines at home.

However, the program didn't undertake a formal evaluative. This study really just describes the approach with some anecdotal information on changes. As a result we cannot attribute changes to the involvement of children.

One study, by Ayi et al. 2010 looked at the impact involving children in reducing the malaria prevalence. Teachers were taught about malaria and its prevention, treatment and symptoms. They were also taught different teaching methods in order to disseminate the information to the children and young people. Then, teachers designed health education activities concerning malaria for schoolchildren, which we used during lesson time. In order to understand the benefits of the malaria-based education, interviews and parasite-based diagnostic testing was made before and after the intervention. The result was that the knowledge about malaria improved in the whole community, both for children and adults. Treating bed nets with insecticides increased among the adults from 20 to 50 per cent. The most positive outcome of the implemented project was that malaria prevalence in the schools decreased from 30 to 10 per cent. The study showed the importance of school based malaria education and to engage children as health change agents to improve the health in the society.

Nonaka et al (2008) used School-based malaria education to improve the knowledge, attitudes, and practices of school children toward malaria control. To evaluate the influence of school-based malaria education on the knowledge, attitudes, and practices of people in the

community toward malaria, they conducted a school-based intervention in Oudomxay province, Lao PDR, and compared scores obtained before and after the intervention. Participants were 130 school children in grades 3-5 at two primary schools, 103 guardians of these children, and 130 married women who did not have children in the target grades. The intervention included presentation of a flipchart at home and a 1-day campaign conducted by the school children and aimed at the community. The main finding was that, in married women without children in the target grades, particularly those who were presented with the flipchart and participated in the campaign, the scores of the mean knowledge, attitudes and practices were significantly increased 1 month after the intervention. They concluded that school children can act as health information messengers from schools to communities for malaria control in Lao PDR.

An evaluation by Simovska and Carlsson (2012) aimed to understand the outcomes and processes of a European intervention project aiming to prevent obesity among children (11-16 years) and promote their health and well-being. Multiple case study research was carried out in five schools in five EU countries. Data sources included project documents, interviews, and observations. Narrative qualitative cross-case analysis was carried out following the single case analyses. The study showed that, if given sufficient guidance, pupils can act as agents of health-promoting changes on both school and local community level; they were involved in actions which improved school policies, provisions and affordances for healthier diet and regular physical activity. The study identified three forms of participation, each with a different level of pupil involvement and agency. The study is qualitative, based on five single cases and cross-case analysis; this research design implies caution related to extensive non-contextualised generalisation of the findings. However, valuable implications for research and practice can be drawn, especially in relation to structural barriers for participatory health promotion.

Kar (2003) documented a participatory Community Led Total Sanitation (CLTS) Programme In Bangladesh. The programme aimed to empower local people to analyse the extent and risk of environmental pollution caused by open defecation, and to construct toilets without any external subsidies. All members of the community had the opportunity to be involved in analysing the environmental situation. Children took part in activities such as Participatory Rural Appraisal (PRA) and processions alongside other community members. Children and young people were viewed as key to the behaviour change process. The article stated that:

Children are the most active in this process of change. It was found that after the transect walk, procession and PRA exercises, children started digging holes for latrines and demolishing open defecation sites. This encourages the adults in the community to

be proactive and responsive to the approach. The children organise routine village processions, collect baseline information, show and flag defecation sites and disseminate information, especially to their friends. They influence their parents to build toilets.

The study also noted that children and young people were involved in the building of new latrines. Kar (2003) also found that the programme has had a very positive and profound impact on the livelihoods of many community members, particularly farmers, who now receive higher market prices from outside merchants for bamboo, sugar cane and mango. Previously, bulk purchasers of these products could enter the orchards or plantations to measure and assess the quality of the produce because of the filth and human excreta in these areas. In addition, illness decreased and the trend was reported as very evident in the ODF declared catchments areas. Reported cases of diarrhoea in children under five at one sub-health post decreased from 7% in 2005 to less than 5% in 2007. School attendance rates have also gone up because children do not get ill as often as they did.

However, it is not clear how this data was gathered. In addition, because the study analysed the impact of all of the project components together, it has made it impossible to understand the direct impact of the children's involvement either on themselves or on the wider society.

What is known about the techniques used to enabling children as agents of change?

Community Led Total Sanitation (CLTS) is an approach that concentrates on empowering local people to analyse the extent and risk of environmental pollution caused by open defecation, and to construct latrines without any external support (Kar and Pasteur 2005). However, children do not often participate in CLTS. When they do, their participation is not well documented (Noor and Ashrafee, 2004).

The School-led total sanitation SLTS programme developed by Kar incorporated the approach and tools of School Sanitation and Hygiene Education, Community Led Total Sanitation, Basic Sanitation Package into the School Led Total Sanitation. The programme is based on adopting a "strength-based appreciative" approach to promote sanitation and hygiene at a local level. For example, a "praise walk" has been used instead of the "shame walk" as an ignition tool to motivate communities to construct latrines. Instead of getting communities to construct latrines with insulting and shameful enforcement, the approach was to encourage communities to be motivated and emulate the toilet construction.

Olayiwole, Ezirim and Okoro (2003) work suggests that they employed the Child-to-Child (CtC) methodology (however, we are unable to identify and evaluate the methods used) and

that there was active and adequate participation of the pupils (although we are not sure what this means) to enhance acquisition of knowledge and skills through improving key hygiene practices such as safe disposal of faeces, hand washing, and hygienic water uses.

Intervention was inspired by the CtC and IVAC approaches to health education. It consisted of action-oriented and participatory health education as well as a follow-up phase, in which students worked as HCs in the school, in the local community and in their families

Onyango-Ouma et al (2005) intervention method was also inspired by the CtC approaches to health education. It consisted of action-oriented and participatory health education as well as a follow-up phase, in which students worked as health communicators in the school, in the local community and in their families.

Dickman and Melek 2013 established voluntary School Environmental Health Clubs (SEHC). This includes training of teachers and members of parent and teachers associations to support the school environmental health club members, to develop community sanitation and hygiene brigades for integrating other children in their communities. Through the operation of these voluntaries, children help to promote improved hygiene practices among their peers, their households and communities. This in turn can lead to a demand for similar facilities and use by their households and communities, thus children serving as agents of change.

One study by Mahbub (2008) did use a qualitative methodology, which involved the systematic collection and presentation of data on the process and the outcome at individual and community level. At the beginning of fieldwork three social maps were done in three parts. During social mapping, information on NGO membership, ownership of tube well and use of latrine was noted down on small cards separately for each household.

Activities such as drama, slogan development, and school sessions were used as part of the CLTS project but the school session was found to be the most effective one. When CLTS was ignited, staff members engaged schoolteachers in conducting sessions in the classrooms on health and hygiene. The study noted that although session content included illness, environmental cleanliness, dignity etc. to clarify the demerits of open defecation that among stall the issues dignity was mostly discussed.

A review of evaluation methodology

Effective monitoring and evaluation (M&E) is considered essential for a number of different reasons such as being able to demonstrate clear and tangible benefits that the project is seeking to achieve and to demonstrate value for money and the cost versus benefits

and to learn and improve projects. Many studies have attempted to evaluate the impact of children's participation and some studies went further to try and evaluate the impact of children as agents of change.

Brian and Curtis et al (2014) measured outcomes by direct observation in 20–25 households per village at baseline and at three follow-up visits (6 weeks, 6 months, and 12 months after the intervention). Observers had no connection with the intervention and observers and participant households were told that the study was about domestic water use to reduce the risk of bias. The primary outcome was the proportion of handwashing with soap at key events (after defecation, after cleaning a child's bottom, before food preparation, and before eating) at all follow-up visits. However, the size and design of the SuperAmma study does not allow us to identify the effect of different intervention on children and young people.

Adhikari and Lal Shrestha (2008) report on the impact of SLTS project making strong claims about the effect of the project on children, wider communities and the wider society. However, it is not clear how the project was evaluated and it does not provide details of the evaluation method used.

However, it is not clear how the project was evaluated and it does not provide details of the evaluation method used.

Studies such as those by Mahbub and Kar's (2003) used a qualitative methodology, which involved the systematic collection and presentation of data on the process and the outcome at individual and community level.

Save the children used a Cluster randomised Control Trial to evaluate the impact of Malaria control in Mali. Eighty primary schools were randomly assigned to either the intervention or comparison group. The impact of the intervention was evaluated by comparing health and education outcomes between children attending the 40 intervention schools with those attending the 40 schools in the comparison group, at baseline and after each phase of the Interventions. Which used questionnaire surveys, involved a pre-test of knowledge about malaria, diarrhea and hygiene among the recipient groups. After the baseline surveys they underwent health communication training conducted by the 40 schoolchildren. An identical post-test questionnaire was administered to all participants at 4 and 14 months. Health-related practices were studied regularly through observation in schools and homes over 14 months. Significant improvement in knowledge was detected in all recipient groups Onyango-Ouma et al. 2005 used questionnaire surveys, which involved a pre-test of knowledge about malaria, diarrhea and hygiene among the recipient groups. After the intervention, an identical post-test questionnaire was administered to all participants at 4 and 14 months. Health-related practices were studied regularly through observation in schools and homes over 14 months. Significant improvement in knowledge was detected in all recipient groups.

Gunawardena et al (2016) used a 12-month cluster randomized trial to measure the impact of School-based intervention to enable school children to act as change agents on weight, physical activity and diet of their mothers.

Participants were mothers with grade 8 students, aged around 13 years, of 20 schools in Homagama, Sri Lanka. Students of the intervention group were trained by facilitators to acquire the ability to assess noncommunicable disease of School-based intervention to enable school children to act as change agents on weight, physical activity and diet of their mothers. Participants were mothers with grade 8 students, aged around 13 years, of 20 schools in Homagama, Sri Lanka. Students of the intervention group were trained by facilitators to acquire the ability to assess noncommunicable disease risk factors in their homes and take action to address them, whereas those of the comparison group received no intervention. Body weight, step count and lifestyle of their mothers were assessed at baseline and post-intervention. Multi-level multivariable linear regression and logistic regression were used to assess the effects of intervention on continuous and binary outcomes, respectively.

Ayi et al (2010) study conducted in the Dangme-East district of the Greater Accra Region, Ghana, between 2007 and 2008. Trained schoolteachers designed participatory health education activities and led school children to disseminate messages related to malaria control to their communities. Three schools and their respective communities were chosen for the study and assigned to an intervention group (one school) and a control group (two schools). Questionnaire-based interviews and parasitological surveys were conducted before and after the intervention, with the intervention group (105 children, 250 community adults) and the control group (81 children, 133 community adults). Chi-square and Fisher's Exact tests were used to analyse differences in knowledge, practices, and parasite prevalence between pre- and post-intervention.

Conclusions and recommendations

The present study demonstrates children can be empowered to be health change agents in the community. European Working Group on Health Promotion Evaluation, "The use of randomized control trials to evaluate health promotion initiatives is, in most cases, inappropriate, misleading and unnecessarily expensive" (WHO, 1998, p. 11). Consequently, the available resources in the present study were used to include a wide range of qualitative and quantitative methods to make an analysis of pre- and post-intervention situation. Age could be another factor for change, but as most changes took place within the first 4 months (T1–T2), age is not an issue. Furthermore, there are no age-related differences between the HCs and CRs even at T1–T2.

The studies identified and presented in this 'rapid sift' demonstrate that children can be change agents in the community. However, the information provided about the type and amount of

projects, which support children to influence behaviour change in the field of health and nutrition is limited.

Out of the 12 studies identified only 4 appear to produce results that we can confidently attribute to the children and young people's involvement. change agents in the community. However, the information provided about the type and amount of projects, which support children to influence behaviour change in the field of health and nutrition is limited.

The literature reviewed does demonstrate how children have been involved in projects to influence change. However, the majority of the current evidence makes it difficult to attribute the impact directly to the involvement of the children or young people. One of the problems with existing studies - such as they are, is it that the interventions often have multiple components, making it very hard to tease out the effect of children as agents of change.

Also, many of the projects evaluations were not clearly documented. This makes it difficult to know if the techniques encouraged children and young people to promote behaviour change. This means that additional research is needed in this area in order to systematically understand the benefits of supporting children to influence behaviour change. Further research should also seek to understand more about which children have been involved and whether children are more effective in bringing about change in behaviours with their peers or with their parents and caregivers, or with the wider community.



Learn more about how children can be agents for change at Children for Health
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