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A Case Study on the Impact of Mother-to-Mother Support Groups on Maternal, Infant and Young Child Nutrition and Care Practices in Habaswein and Wajir South Districts of North Eastern Kenya*

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ABSTRACT

Only about 25% of babies are exclusively breast fed until six months of age in developing countries though they are at a greater risk of infection and infant mortality. The Global Strategy for Maternal, Infant and Young Child Feeding (MIYCF) Strategy developed by WHO/UNICEF in 2002 was to revitalize world attention to the impact of feeding practices on the nutritional status, growth, development, health and survival of infants and children. The data for this case study was collected through key informant interviews, observations and review of Save the Children nutrition programme reports and surveys. This information was then organized to produce a detailed description of the maternal, infant and young child nutrition programme in Habaswein and Wajir South districts or sub-counties. The maternal and infant young child nutrition (MIYCN) programme was launched in Habaswein and Wajir South districts in January 2012. The MIYCN programme followed recommendations of a Knowledge, Practice and Coverage (KPC) survey report in July 2012. To date, the programme has formed 48 Mother-to-mother Support Groups (MTMSGs), which are actively promoting the uptake of the recommended MIYCN practices in the community. MIYCN indicators have been markedly improved between July 2011 and February 2013 when surveys were conducted. The uptake of kitchen gardening has picked up significantly at Meri site and some mothers now have a changed attitude towards unskilled home deliveries and are conducting referrals for skilled births. The marked improvements in the performance of MIYCN indicators between July 2011 and February 2013 in Wajir South and Habaswein districts can be partly attributed to the MIYCN programme established in January 2012. However, a randomized community trial is still required to provide conclusive results on the impact of care support groups on maternal, infant and young child feeding in this region.

Keywords: Mother-to-Mother Support Groups; Maternal; Infant and Young Child Nutrition; Impact

1. Introduction

Only about 25% of babies are exclusively breast fed until six months of age in developing countries though they are at a greater risk of infection and infant mortality [1]. The Global Strategy for Maternal, Infant and Young Child Feeding (MIYCF) Strategy was developed by WHO/UNICEF in 2002. The aim was to revitalize world attention to the impact of feeding practices on the nutritional status, growth, development, health and survival of infants and children. The strategy was evidence-based and founded on the conclusions and recommendations of expert consultations, which resulted in the global public health recommendations to protect, promote and support exclusive breastfeeding for six months, and thereafter provided safe and appropriate complementary foods with continued breastfeeding up to two years of age or beyond [2].

However, the children are not fed in the recommended way. Many mothers, who initiate breast feeding satisfac-

*Hellen Ekisa planned and implemented the MIYCN programme. She also collected the data. Charles Muruka provided management support, conceptualized the study and co-wrote the article with Hellen Ekisa. The views expressed in this article are solely those of the authors and do not in any way reflect the views of Save the Children.

torily, often start complementary feeds or stop breast-feeding within a few weeks of delivery. Similarly those who grow well up to six months of life do not receive adequate complementary foods. This may result into malnutrition, which is an increasing problem in many countries. Malnutrition contributes to more than half of the 10.6 million deaths annually among children in developing countries. On the other hand, maternal health and nutrition cannot be underrated. Pregnant and lactating women need to adhere to good health and nutrition practices in order to prevent problems that can easily happen on the new born and even the mothers themselves.

2. Literature Review

A longitudinal study [3] to assess the impact that a mother-to-mother support program had on early initiation of breast-feeding and on exclusive breastfeeding in peri-urban Guatemala City, Guatemala brought found that at follow-up, 31% of mothers in the program communities indicated that counselors had advised them about breast-feeding, 21% said they had received a home visit, and 16% reported attending a support group. Communitywide rates of early initiation of breast-feeding were significantly higher in program areas than in the control communities, at both baseline and follow-up. However, the change over time in early initiation in program communities was not significantly different from the change in control communities. Communitywide rates of exclusive breast-feeding were similar in program and control sites and did not change significantly from baseline to follow-up. However, of the mothers in the program communities who both received home visits and attended support groups, 45% of them exclusively breast-fed, compared to 14% of women in program communities who did not participate in those two activeties. In addition, women who were exposed to mother-to-mother support activities during the year following the baseline census and survey were more likely than mothers exposed before that period to exclusively breast-feed. This suggests that the program interventions became more effective over time. Despite these findings, the study concluded that there was no evidence of population impact of mother-to-mother support program intervention after one year of implementation and recommended that long-term community-based interventions, in partnership with existing health care systems, may be needed to improve communitywide exclusive breast-feeding rates.

Hall [1] conducted a study to assess the effectiveness of community-based interventions to improve the rates of exclusive breast feeding at four to six months in infants in low- and low-middle-income countries. He conducted a systematic review of literature identified through searches of Medline, Global Health and CINAHL (Cumulative Index to Nursing and Allied Health Literature) databases to identify randomized controlled trials of community-based interventions to improve the rate of exclusive breast feeding in low- and low-middle-income countries. Four studies, from four different countries, were included in the final review. Although they evaluated slightly different interventions, all showed a significant improvement in the rate of exclusive breast feeding with a pooled odds ratio of 5.90 (95% confidence interval 1.81 - 18.6) on random effects meta-analysis. The study concluded that community-based interventions in low- and low-middle-income countries can substantially increase the rates of exclusive breast feeding and are therefore a viable option. The interventions included in the review varied, indicating that there are a number of ways in which this might be achieved; it is recommended that these are used as a starting point for determining the most appropriate intervention with regard to the setting.

3. Methodology

3.1. The Study Area

The study was conducted in Habaswein and Wajir South [4] districts or sub-counties of Wajir County, north eastern Kenya. Wajir South and Habaswein districts cover a vast area of 22,000 km^2. The area borders Somalia to the East. It has a population of 142,545, out of whom 4704 (3%) are children under 1 year; 21,263 (15%) are children under 5 years; 28,937 (20%) are women of child-bearing age (15 - 49 years). This population is currently served by only 16 operational health facilities that are grossly understaffed and under-resourced. There are over 49 settlements (locally called *towns*) but only 14 are served by health facilities within a 5 km radius. The area is arid, marginalized and has high rates of malnutrition, illiteracy, and high maternal and infant mortality. Save the Children has been implementing emergency nutrition programmes in this area since 2009.

3.2. Data Collection

The data for this case study was collected through key informant interviews, observations and review of Save the Children nutrition programme reports and surveys. The key informants were all drawn from the Meri site. They were the health facility in charge, three village elders, one community health worker, and three mother-to-mother support group members. This information was then organized to produce a detailed description of the maternal, infant and young child nutrition programme in Habaswein and Wajir South districts.

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4. Study

4.1. Roll-Out of Maternal Infant and Young Child Nutrition (MIYCN) Programme in Wajir South and Habaswein Districts

Maternal, Infant and Young Child Nutrition (MIYCN) programme in Habaswein and Wajir South districts arose as a recommendation from a previous Knowledge Practice and Coverage survey conducted in July 2011. One of the causes of malnutrition identified during the KPC survey was poor infant feeding practices resulting from poor knowledge and cultural barriers. The MIYCN programme seeks to address and to promote knowledge and skills on key child feeding practices and maternal health and nutrition care. The core components of the maternal, infant and young child nutrition programme that are being implemented are: promotion of appropriate feeding practices for pregnant and lactating mothers; promotion of exclusive breastfeeding for the first six months of a baby's life; promotion of appropriate complementary feeding practices after six months; promotion of breastfeeding up to two years of an infant's life; training of health workers on infant and young child feeding; and promotion of baby-friendly community initiative (BFCI). The mother-to-mother support groups are main components of the baby-friendly community initiative. The mother-to-mother support groups are supposed to promote the uptake of high impact nutrition interventions in the community. The high impact nutrition interventions being promoted in the community include: exclusive breastfeeding for six months; appropriate complementary feeding from age six months; twice yearly vitamin A supplementation; zinc supplementation for diarrhoea management; iron-folate supplementation for pregnant mothers; prevention of acute malnutrition; management of moderate and severe acute malnutrition; improved hygiene practices including hand-washing; and deworming of children.

The MIYCN programme began in January 2012 when three counselors were identified at Habaswein, Abakore and Meri sites in Habaswein district. The counselors were trained for 4 days and in return, they too identified 6 women each who would be facilitators for the mother-to-mother support groups (MTMSGs). The counselors then conducted 3-day training to the facilitators who then went and formed mother-to-mother support groups in their *bullas* (villages). These groups acted as a pilot for MIYCN activities in Habaswein district.

4.2. Formation of More Mother-to-Mother Support Groups (MTMSGs)

On realizing the tremendous gains made through the pilot groups, more MTMSGs were formed in 5 different sites in both Wajir South and Habaswein districts. The selection criterion for the counselors and facilitators was to involve the community at all stages. The community was first sensitized on the importance of the groups to gain acceptance and appreciation. Through the community leaders and elders, health facility in-charges and the Habaswein District Public Health Office at Habaswein, lead mothers were selected. The second infant and young child nutrition IYCN training for counselors and facilitators was conducted in January 2013 by the Habaswein District Public Health Office, supported by Save the Children. There are currently 48 MTMSGs in the larger Wajir south district (Habaswein 30, Wajir south 18) with lots of successes being recorded one of them being the recruitment of men to participate which has warranted name changing from MTMSGs to care support groups (CSGs). The care support groups (CSGs) have been formed in eight (8) out of the over 49 settlements (*towns*) in Habaswein and Wajir South districts. Each of these sites has six (6) CSGs. In each of the six sites there are about six *bullas* (villages) each and ideally, a CSG should be formed in each *bulla*. The number of participants has recently risen to 629 in total.

The CSGs have been meeting every month to chart the way forward on how to improve the community's health through maternal and infant best feeding and care practices. Save the Children has conducted a series of trainings with the objectives of passing knowledge and skills on hygiene, especially personal and food hygiene and income generating activities. All the members of the 48 care support groups (CSGs) have been trained on participatory hygiene and sanitation (PHAST) training, kitchen gardening, poultry keeping, demonstration on hand washing, and other income generating activities. These trainings are usually a motivating factor to the groups. Six (6) CSGs have also been sensitized on High Impact Nutrition Interventions (HINI) package and are sensitizing the community, especially on the use of oral rehydration salt (ORS) and zinc sulphate for diarrhoea management and creating community awareness on other micronutrients supplemented in the health facilities.

5. Analysis

5.1. Uptake of Breastfeeding and Postnatal Care

A knowledge, practice and coverage (KPC) survey conducted in February 2013 shows marked improvements especially in MIYCN indicators and coverage when compared to July 2011 when the support groups had not yet come into existence.

The **Table 1** shows marked improvements in the MIYCN indicators and this can be partly attributed to the MIYCN programme.

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Table 1. Results of knowledge practice and coverage surveys.

Breastfeeding Practices Indicators	July 2011 [5]	February 2013 [6]
a) Infants age 0 - 5 months who received exclusive breastfeeding during the last 24 hours.	21.1%	53.7%
b) Children age 0 - 23 who were breastfed within one hour after delivery	45.3%	67.3%
c) Children age 6 - 23 months of age continuing breastfeeding	45.3%	64.2%
d) Maternal knowledge on the duration of exclusive breastfeeding	24.2%	44.2%
e) Maternal knowledge of duration of breastfeeding	67.4%	84.2%
Postnatal Care Indicators		
a) Mothers with who had at least one postpartum check-up by qualified health personnel.	34.7%	40.0%
b) Mothers who received counseling on child spacing postpartum	20.0%	18.9%
c) Mothers who received counseling on infant feeding	28.4%	34.7%
d) Mothers who received counseling on immunization at postpartum check.	35.8%	41.1%
e) Mothers who received counseling on infant diarrhoea management at postpartum check	23.2%	20.0%
f) Mothers who received counseling on pneumonia management at postpartum check	17.9%	16.8%
g) Mothers who know at least two newborn danger signs	93.4%	97.7%
h) Mothers who received vitamin A after delivery	49.5%	51.6%
i) Mothers with a maternal health card	52.6%	86.3%

5.2. Community Sensitization on MIYCN

Last year's (2012) district launch of the World Breastfeeding Week (WBW) saw mother-to-mother support groups, by themselves, competently passing health messages on breastfeeding through songs, drama and health education in Meri dispensary.

5.3. Conducting Referrals for Skilled Delivery

During a routine monitoring site, one MIYCN counselor attached to Sabuli health centre said sometimes she has to part with at least Kshs 400 (approx. 4.6 US Dollars) to hire a donkey cart to ferry a pregnant mother in labour just to ensure she has a safe delivery in the health center. When probed further, she asked, "What's more important? Should I look on as a mother who might lose her life due to bleeding and other risks associated with unsafe home delivery or part with 400 Kenya shillings to save her? God has put us here in position and when a woman insists she cannot afford transport to hospital, I feel I should help. I do not expect anything in return but I know God sees and will return more. Our only problem is the scorching sun when we visit homes. We need umbrellas in this sun."

5.4. Uptake of Kitchen Gardening and Other Income Generating Activities

Some of the successful activities registered by the care support groups (CSGs) are kitchen gardens and business enterprises. Save the Children supported the Ministry of Agriculture to train the CSGs on kitchen gardening and poultry keeping. 48 CSGs in Wajir south and Habaswein have so far been reached and their capacities well built on these activities. Currently, everybody is excited seeing what goes on in the community. The groups especially women have embarked on growing various types of fruits and vegetables in their group gardens and homes. They say they want to grow enough nutritious foods to combat malnutrition which has been a very big burden to their community. Eleven (23%) of CSGs have established kitchen gardens in Habaswein district. Six (6) CSGs have had their first harvest of cowpeas leaves in Meri site. They have also grown a bigger group garden for demonstration to the entire community in Meri site.

The Abakore site MIYCN counselor and one Community Health Worker (CHW) were taken to Meri site for an exchange visit where they were excited to see what the CSGs are doing. On the most recent monitoring visit by Save the Children MIYCN programme staff to Meri, the health facility in-charge explained: "*Meri yote saa hii ni kitchen na multi-story gardens. Kila familia inafurahia hii maneno wameonyeshwa na hawa wamama,*" which translates to the whole of Meri is kitchen and multi-story gardens. Every family is happy with what has been demonstrated by these mothers'. "We have shown them how to prepare, cook and eat kunde *na wanasema hii*

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mboga ni mzuri sana" *which translates to* "We have shown them how to prepare, cook and eat *and they say this vegetable is very good*". The health facility in-charge then led the visiting team to a tour of the village. The team found some nice and healthy vegetables growing in small gardens in most of the homes. In one home, the team found men who started asking whose idea that was since they had never heard and seen it before. They explained how they had benefited from the kitchen gardens that they currently could eat green vegetable which was tasty and nice. They also said that their children would in future grow healthier because of the new diet and style. As the team approached a sack full of soil and healthy tomato and kale seedlings, one of the men exclaimed: "*Hiyo ni* multi-story garden!" *Ni rahisi sana kwa sababu inahitaji maji kidogo, kazi kidogo na tutakula mboga*," which means "It is convenient as it only needs a little amount of water, not much work and we will eat vegetables!"

Save the Children is supporting the care support groups (CSGs) through all stages right from training on the importance of good nutrition, malnutrition and how to prevent it, help with how to build kitchen garden and multi-story gardens, linkages with the agricultural extension workers, planting and care and finally showing mothers how to prepare foods in the most nutritious ways possible. In July 2013, six (6) CSGs in Meri had their first harvest, shown how to cook and celebrated their first vegetable lunch together! In the absence of fresh fruits and vegetables in the North eastern region food basket, micronutrients are scarce and have to be accessed from other sources. Combined with other basic nutrition education, promotion of kitchen gardening provides families with an opportunity to improve the feeding patterns of infants their mothers and older children. Vegetables are made available and accessible to vulnerable groups like the elderly, female, pregnant and lactating and people living with HIV/AIDS or any other chronic illnesses. One CSG in Habaswein town is doing well with their trade (butchery and goat trading), currently expanded to poultry keeping.

5.5. Participation in Positive Deviance Hearth (PD Hearth)

In August 2013, the PD Hearth methodology was rolled out in Wajir South and Habaswein, beginning at the Abakore site to promote infant and young child nutrition. The CSGs are managing the hearth process, through their participation in setting the rules, contributing food and conducting cooking demonstrations, and implementation of the health promotion strategy. In addition, they are also conducting follow-up visits to hearth beneficiaries.

6. Conclusion and Recommendations

The marked improvements in the performance of MIYCN indicators between July 2011 and February 2013 in Wajir South and Habaswein districts can be partly attributed to the MIYCN programme established in January 2012. The care support groups (CSGs) have also been demonstrated to promote kitchen gardening, at least in the Meri site. Strengthening care support groups and the promotion of kitchen gardening through these groups is therefore an important entry to improve knowledge and skills to address "hidden hunger" (micronutrient deficiencies) and malnutrition in such settings. To complement these preliminary descriptive findings, we recommend that a randomized community trial is still required to provide conclusive results on the impact of care support groups on maternal, infant and young child feeding in this region.

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