



Participation in Care Groups as a Predictor of Enhanced Dietary Diversity amongst Women and Children: Experiences from Zimbabwe

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Abstract

The Amalima program, a United States Agency for International Development (USAID) Office of Food for Peace intervention has been promoting care groups since 2014. The Care Groups are an innovative community based strategy that have been used to promote recommended infant and young child feeding (IYCF) and care practices in a resource constrained setting in Zimbabwe. The researchers conducted a study to compare the quality of the diet for children and mothers participating in care groups and children and mothers not participating in care groups. The research was conducted in two districts (Gwanda and Tsholotsho) in Zimbabwe across 8 purposively selected sites. A total of 242 children and 101 women beneficiaries were included in the study. We analyzed consumption of the three non-staple food groups promoted by the care groups under the theme ‘four star diet’ namely vegetables and fruits, legumes and animal source foods. Children whose caregivers were members of care groups had significantly higher consumption of pulses and legumes, fruits and vegetables and animal source foods compared to children whose caregivers were non-care group members. There was no difference in diet quality between women who were attending care groups and those who were not. Efforts should be put in place to increase participation in care groups as they serve as a key contact point to support recommended infant and young child feeding and care practices during the first 1000 days of life. There is a need to explore barriers to care group participation and develop a strategy to address them for those who are not attending. The program should explore the reasons behind the limited impact that care group attendance has on diet quality for women.

1. Introduction

The Amalima program, a United States Agency for International Development (USAID) Office of Food for Peace Amalima intervention is a seven year development food security activity whose goal is to improve household food and nutrition security. The program is being implemented by CNFA (the prime organisation), International Medical Corps, The Manoff Group, Organization of Rural Associations for Progress (ORAP), Africare, and Dabane Trust in two provinces, Matabeleland North and Matabeleland South in Zimbabwe. The program is implemented in four districts (Bulilima, Mangwe and Gwanda in Matabeleland South and Tsholotsho in Matabeleland North) across two provinces. The four districts are in agro-ecological regions 4 and 5, which are prone to low rainfall patterns and consequently are largely food and nutrition insecure. Amalima aims to improve household food and nutrition security through three Strategic Objectives: *1) household access to and availability of food improved, 2) community resilience to shocks improved, and 3) nutrition and health among pregnant and lactating women and boys and girls under 2 improved.* International Medical Corps is the technical lead for the third objective, of

which the key activities include implementing care group activities to promote the adoption of key recommended infant and young child feeding and care practices.

The program has been implementing care groups in Tsholotsho district in Matabeleland North and Gwanda, Bulilima and Mangwe districts in Matabeleland South. Care Groups are participatory community level nutrition education groups consisting of up to 10 caregivers led by a trained Lead Mother. The Lead Mothers are trained by Care Group Volunteers (CGVs) who are community-based Village Health Workers (VHWs) trained on the Care Group approach. Each Lead Mother (LM) trains and supports up to 10 mothers or caregivers through sharing key messages each month. Care groups have a multiplier effect allowing the program to reach more beneficiaries at a low cost. The program has over 400 CGVs, and over 1,700 LMs; the volunteers reach up to 6,000 mothers and caregivers each month with key messages and encouraging adoption of promoted behaviors. The Amalima program curriculum covers maternal nutrition, breastfeeding and child feeding as well as hygiene promotion. The care groups were also the vehicles employed to deliver key trainings on promoting nutritious locally available foods, which would translate to improved dietary diversity.

Care groups are peer to peer support groups of about 10 mothers (pregnant or lactating women and caregivers of young children) that meet on a regular basis. The group sessions are led by a facilitator (lead mother), with the objective of imparting knowledge, and promoting the adoption of health, nutrition and hygiene behaviours. The care group approach increases coverage and behavior change by creating a large network of trained community volunteers. Care groups provide an opportunity for resource constrained countries to improve the health and nutrition status of their populations.

Whilst Zimbabwe has made commendable progress in reducing malnutrition, one in four children in Zimbabwe is stunted. (National Nutrition Survey, 2018). The Government of Zimbabwe has aligned its commitment to the World Health Assembly (WHA) target of a 40% reduction in stunting by 2025, however the latest projections anticipate that Zimbabwe will not meet the WHA target¹ by 2025. Among the various possible reasons for lack of progress is the low population coverage of key high impact interventions. Indeed, the final country report on the Millennium Development Goals (MDG) identified improved coverage of vaccines and exclusive breastfeeding as unfinished business related to MDG Four². The report highlighted the need to pay special attention to rural areas where coverage tends to be lower than urban areas.

Dietary diversity is a qualitative measure of food consumption that reflects household access to a variety of foods and is also a proxy for nutrient adequacy of the diet of individuals. The importance of dietary diversity is based on several studies that have shown that diverse diets are accompanied by positive health outcomes. The Amalima Care Groups provide a platform for promotion of dietary diversity of pregnant and lactating women as well as children 6-23 months through Healthy Harvest trainings, child feeding and maternal nutrition lessons as well as cooking demonstrations. Care Group participants also receive a

¹ https://www.who.int/nutrition/topics/globaltargets_stunting_policybrief.pdf

² MDG Four - Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate

recipe book to encourage the preparation of nutritious meals promoted during the cooking demonstrations. The care groups promoted consumption of the four-star diet³ which is comprised of four food groups namely cereals/staples, fruits and vegetables, legumes and pulses and animal source foods.

2. Research Objectives

The primary objective of the study is to assess the influence of care group participation on dietary practices of pregnant and lactating women and children 6-23 months

3. Research Question

- What is the impact of care group participation on dietary practices?
- Does care group participation result in improved diet quality for children aged 6-23 months?
- Does care group participation result in improved diet quality for pregnant and lactating women?

4. Methodology/Data Collection

Study Sites and Population

The Amalima program has supported a total of 20,019 pregnant and lactating women with food rations while 29,489 children aged six to 23 months were receiving supplementary food rations at the time of the study. The study sampled 4 food distribution points in Gwanda district and 4 food distribution points in Tsholotsho district and a total of 168 women beneficiaries and 242 children beneficiaries were included in the study. The data collection for this study took place in June 2019 during the supplementary food ration distribution exercise.

At each food distribution point all women and children (supplementary food ration recipients) were invited to participate in the study. Those who were members of a care group were assigned to the first group (care group) while those who were not members of care groups were assigned to the second group (non-care group). The parents/care givers of the children included in the study gave their written consent after being given information on the purpose and practical issues of the study.

Data Collection

Questionnaires were administered to the care group and non-care group participants where respondents included the pregnant and lactating woman or caregiver to the child beneficiary by trained interviewers. Information was collected on the following characteristics: (i) the respondent's age and sex; (ii) feeding practices, including breastfeeding, consumption of food and beverages, and meal frequency using the self-reported 24-hour recall method; (iii) the mother's age and education.

³ There are four food groups which may be added in a different order to create a 4 star diet. These include: animal-source foods (meat, fish, liver), and eggs, milk and milk products; Staples (maize, wheat, rice, millet and sorghum); roots and tubers; Legumes (beans, lentils, peas, groundnuts); Vitamin A-rich fruits and vegetables (mango, papaya, passion fruit, oranges, dark-green leaves, carrots, yellow sweet potato and pumpkin), and other fruit and vegetables (banana, pineapple, watermelon, tomatoes, avocado, cabbage).

Data Analysis

Evaluation of the diet diversity of respondents

The researchers collected information on foods consumed over the preceding 24 hours using the FAO/FANTA recommended tool for dietary intake. The information was used to determine how many food groups were consumed by each individual. The food groups were divided into four in line with the key recommendations of the program that each woman and child must consume a four star diet each day. The four-star diet was used as it aligns with the key recommendations made by care group facilitators as well as the simplified national diet recommendations. The proportions of respondents consuming each food group were compared using a two tailed Z test at 0.01 level of confidence.

5. Key Findings

Characteristics of the women and children included in the study

Data from 242 children were collected from mothers/caregivers, in addition data from 168 pregnant and lactating women were collected for the study. Out of the data for the 242 children sampled 101 mothers/caregivers were care group members while 141 mothers/caregivers were non-care group members. Of the 168 women sampled 83 were care group members while 85 were not. The characteristics of the respondents are illustrated below according to whether they were members of care groups or not.

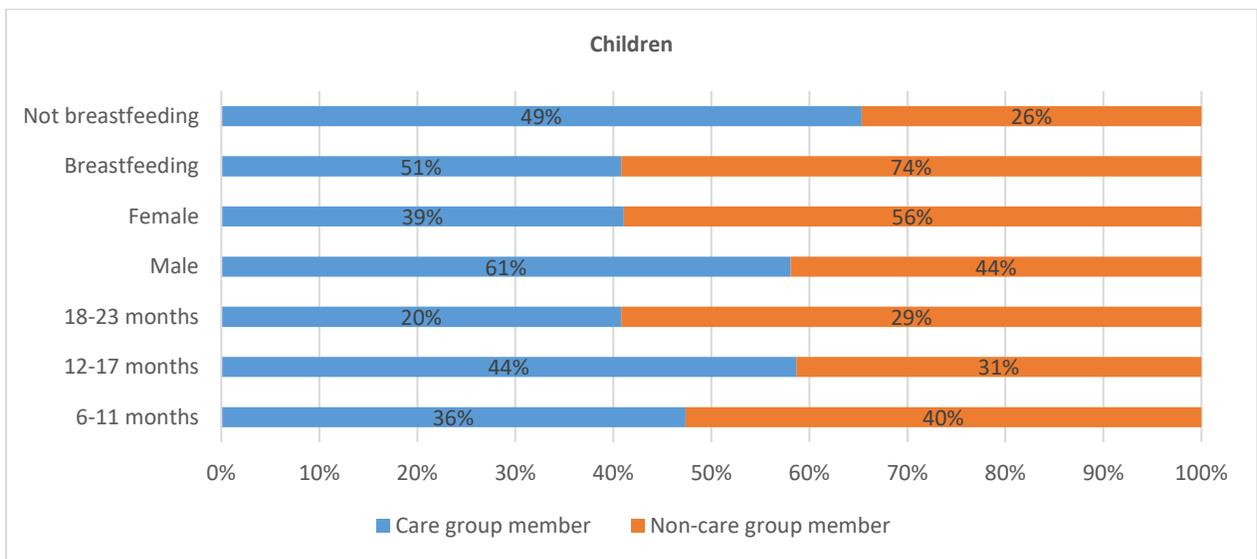


Figure 1.1 Characteristics of children in the study

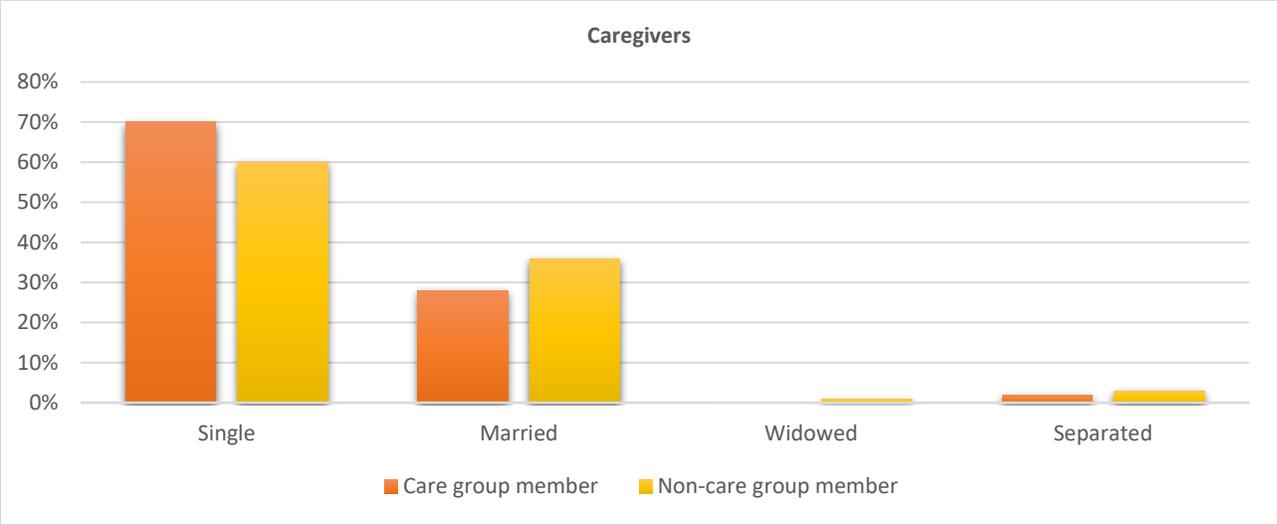


Figure 1.2 Characteristics of caregivers in the study

Education attained	Care group member	Non-care group member
None	0%	1%
Up to primary level	7%	26%
Secondary and above	93%	73%
Median age (years)	30.5	30.5

Table 1.1 Education attained

Quality of diet of children 6 to 23 months

Almost 100% (241 of the 242) children sampled had been breastfed at some point in their lives. 78% (187) of the 241 children ever breastfed were still breastfeeding at the time of the study. The researchers analysed consumption of the four food groups promoted by the care groups under the theme ‘four-star diet’ namely staples, vegetables and fruits, legumes and animal source foods. The findings of the analysis are tabulated below:

Food Group	Care Group (proportion consuming)	Non-Care Group (proportion consuming)	P value
Fruits & Vegetables	33%	18%	0.00104
Legumes and Pulses	29%	1%	0.00001
Animal Source Foods	59%	26%	0.00001

Table 2.1: quality of diet of children 6-23 months

The study findings show that, the consumption of non-staple food groups was poor for all the children sampled. However children whose caregivers were members of care groups had significantly higher consumption of the non-staple food groups. In particular, consumption of pulses and legumes amongst children living with care group members was at 29% compared to 1% amongst children living with non-care group members. Close to 60% of care group members reported having consumed animal source foods against a quarter of the non-care group members.

Quality of diet of pregnant and lactating women

The diets for the pregnant and lactating women were also analysed for quality under the same criteria and the findings are tabulated as follows:

Food Group	Care Group (proportion consuming)	Non Care Group (proportion consuming)	P value
Fruits & Vegetables	69%	60%	0.242
Legumes and Pulses	54%	44%	0.16452
Animal Source Foods	24%	29%	0.242

Table 2.2 Analysis for diets for the pregnant and lactating women

For the pregnant and lactating women, the study findings show that the consumption of non-staple food groups was high with both groups particularly for fruits and vegetables as well as legumes and pulses. There was no significant difference in consumption of all food groups between care group members and non-care group members.

6. Recommendations based on findings

6.1. Infant and Young Child Nutrition

The study findings highlight that children of care group members receive better quality meals as compared to children of non-care group members. There is a need to motivate project beneficiaries to participate in care group sessions in their respective villages. Likely barriers to participation can be identified and addressed at local level. Previous studies have identified common barriers to participation in psychosocial support groups as timing of group sessions, duration of sessions, location of group meetings and lack of appreciation or understanding of the benefits of participating in such groups (Madiba and Canti-Sigaca, 2012).

6.2. Maternal Nutrition

The findings show that there is improved diet quality for children of mothers attending care groups, but this benefit is not observed for pregnant and lactating women. There is a need to promote messaging that emphasizes adoption of the recommended infant and young child feeding practices (consumption of a nutritious diet) even during pregnancy as the 'first 1,000 days' begins at conception. This suggests that there could be challenges with pregnant and lactating women adopting recommended nutrition practices. There is a need to explore the issues contributing to this challenge as they could be individual (non-

compliance by the women), household level (unsupportive household, food-related coping strategies) or related to the program (messages more tailored to infants and young children or messages not adequately addressing socio-cultural barriers).

7. Conclusion

There is growing evidence of the critical role played by care groups in addressing the psychosocial support needs of women as well as covering the gap in access to health and nutrition services particularly to rural populations in developing country settings. The aim of this paper was to analyze the effect of care group participation on diet quality in Amalima program areas. The Amalima program offers a unique opportunity to study these research questions, given the long period of the program implementation at scale. Our analysis has two key findings. Firstly, in the sample of pregnant and lactating women, participation in a care group is not associated with improved or higher dietary diversity. Secondly, in the sample of children aged 6 to 23 months, participation of caregivers in care groups is associated with improved or higher dietary diversity.