

**MICROCREDIT–NUTRITION EDUCATION LINK:
A CASE STUDY ANALYSIS OF GHANAIAI WOMEN’S
EXPERIENCES IN INCOME GENERATION AND FAMILY CARE**

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ABSTRACT

The Enhancing Child Nutrition through Animal Source Food Management (ENAM) project, part of the Global Livestock Collaborative Research Support Program (GL-CRSP), integrated a microcredit and savings program with entrepreneurial and nutrition education to strengthen women's income-generation activities with the intent of increasing women's (caregivers) abilities to purchase more Animal Source Foods (ASF) for family meals. The model stressed the integration of research, community development and capacity strengthening and the full participation of partners. The aim of this qualitative study was to provide an understanding of how the microcredit, entrepreneurship and nutrition education program impacted the daily lives of the women who participated in the interventions. Three questions were addressed: What factors lead to success in a microcredit and nutrition education program? What are the obstacles to women's successful participation and what strategies are employed to overcome these obstacles? What are the lessons learned for future programs? The qualitative analysis was based on case studies of 12 women considered by their peers to be 'successful' ENAM participants, and six case studies of women considered to be 'less successful' ENAM participants. The qualitative methodology complimented knowledge gained through quantitative investigations as reported by other authors in this supplement. Data were collected through focus group discussions, in-depth interviews and observations. The findings suggested that the greatest benefit to participants from the ENAM experience was its translation into opportunities for obtaining microcredit, which in turn, helped increase women's business success. Women who were doing well in business before the ENAM interventions did even better as a result of their participation in the ENAM project. Successful women employed multiple strategies to overcome business challenges. Anecdotal evidence suggested that the microcredit-education link in this particular situation did positively impact women's lives with respect to their small businesses, their personal development, and the health of their families.

Key words: Microcredit, Nutrition, Women, sub-Saharan Africa

INTRODUCTION

The Enhancing Child Nutrition through Animal Source Food Management (ENAM) project, funded by the USAID Global Livestock Collaborative Research Support Program (GL CRSP), was a 5-year collaborative endeavor involving Iowa State University, University of Ghana, and McGill University. A microcredit and savings program that included entrepreneurial and nutrition education was introduced in Ghana to strengthen caregivers' income-generation activities (IGA) and encourage the provision of Animal Source Foods (ASF) to improve the dietary quality and nutritional status of young children. Micronutrient-poor diets are a primary contributor to the continuing nutrition problem among Ghanaian children [1, 2].

Program interventions and development processes that were implemented in the ENAM project responded to early findings of a participatory rural appraisal and a stakeholder-planning workshop [3]. Stakeholders identified low income as the major obstacle underlying limited availability, accessibility and utilization of ASF in Ghanaian households [3]. Primary interventions that stakeholders recommended to improve the well-being of young children and to enhance individual and community capacity included: (i) nutrition and entrepreneurship education for caregiver groups and field practitioners; (ii) income generation activities to assist business development; (iii) community building through group and individual empowerment and networking; and (iv), assistance to improve caregivers' marketing and value added knowledge.

The ENAM program was launched in 2003 in the Navrongo (Guinea Savannah zone), Techiman (Forest Transitional zone) and Winneba (Coastal Savannah zone) areas [3, 4]. The target communities varied in terms of geography, subsistence activities, languages, cultural patterns and available resources and services. In the research regions it was assumed that women were the primary child caregivers based on evidence of the multiplicity of women's roles [5-7], women's inequitable access to household resources and decision-making [5-7], and women's influence on child health [8, 9]; however, this does not mean to imply that women's roles are confined to the home alone, they spanned many economic sectors [7, 8].

In all study locales, women are responsible for food preparation and child-care [3]. Typically, in northern Ghana, men provide the starch base of the meal (for example corn, millet, sorghum, cassava, and yam) and women are responsible for the accompanying stew ingredients, including any ASF incorporated. While women may own small animals they may not be able to slaughter for home consumption or sell an animal for cash without male approval. Most ASF consumed in the home is purchased. Thus, increasing income that is controlled by women may enable women to purchase ASF, thereby improving their children's diets. ASF are a rich source of high quality protein and bioavailable minerals such as calcium, iron, zinc, and vitamins A and B-12 [10].

The ENAM model stressed the integration of research, community development and capacity strengthening and the full participation of all partners (Figure 1). The goal of

ENAM was to improve the nutritional status of Ghanaian children, specifically to (i) improve the well-being of children living in poverty with limited access to ASF by enhancing households' abilities to access and provide ASF to young children; and (ii) enhance human resource capacity to address the needs for increased ASF in children's diets.

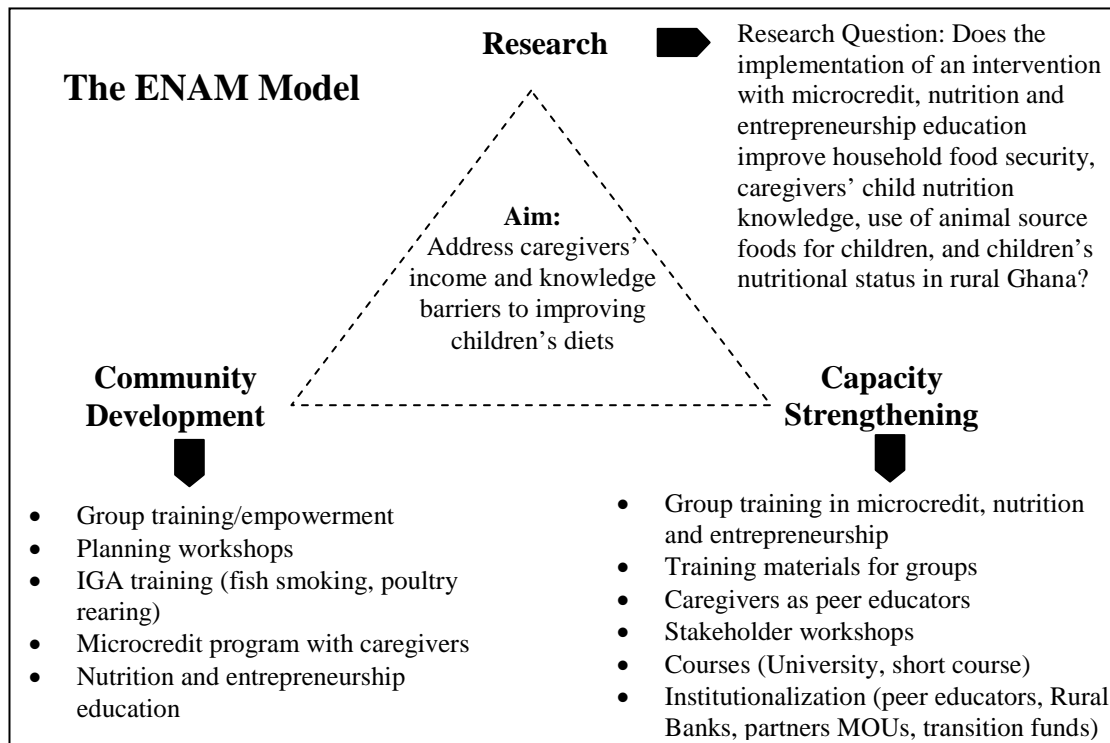


Figure 1: The ENAM Model: Integrating research, community development and capacity strengthening

The project had two interdependent interventions: microcredit and education. The microcredit activity involved caregivers who formed Credit and Savings Associations (CSA). Education in child nutrition and health and entrepreneurship was offered at weekly CSA meetings. The two complimentary components were integral to project design. Alone, neither would have been as effective. Small Solidarity Groups (SG) were formed, each composed of three to six caregivers. These were self-selected according to caregiver-defined criteria although the ENAM project required members to have a child between two to five years of age and to be a community resident. Group members served as mutual guarantors for each other's loans, underscoring the importance of mutual trust. Many caregivers in a SG had a similar IGA, for example yam selling in Techiman, and fish selling in Winneba. In Navrongo there was greater business diversity (rice, fish, shea nuts/butter selling). In each target community the SG combined to form one large CSA; there were a total of six CSA and thirty SG.

Trained ENAM field officers facilitated weekly CSA education using locally appropriate training materials on child nutrition and health, and business entrepreneurship. The training materials were field tested for clarity and cultural acceptability. As participants' capabilities grew they assumed greater responsibility for organization, training and discussion leadership. All CSAs nominated four members to receive peer educator training: two for nutrition education, and two for entrepreneurship education. ENAM project field officers mentored peer educators in the early phases until peer educators were able to operate independently [11].

The aim of this qualitative study was to understand how the ENAM microcredit-education program impacted participants' daily lives – their businesses, knowledge, social capital, and family life. It was designed to elaborate on three questions: (i) What factors lead to participants' success in a microcredit-education program? (ii) What are the challenges to women's successful participation and what strategies were employed to overcome these obstacles? (iii) What are the lessons learned for future programs of this type that aspire to improve the nutritional intake of young children? Case study methods and processes are described, followed by a summary of findings and implications.

MATERIALS AND METHODS

The case study has long been a mainstay of educational research and evaluation [12] and of anthropology and other social sciences; it has often been used in documenting international development [13]. Case studies are useful for gathering in-depth insights about unique organizations, populations or individuals [12, 13], or for preliminary theory development or hypotheses testing [14]. Stake [14] recommended using case studies for expanding the understanding of people and society. Patton [13] noted that global organizations like the World Bank and USAID advocate greater use of case studies in developing countries because of their practicality; large-scale quantitative studies are often prone to data management problems, which in turn, may lead to validity and reliability issues.

Case studies were implemented to provide the ENAM project with a qualitative assessment of the life experiences of study participants, and to ascertain participants' perceptions of 'successful' and 'less successful' participation in the ENAM project. A total of 18 primary respondents (cases) were selected for the study. The first step was the formation of a focus group composed of two members from each SG; the leader or her deputy, and another person nominated by other members. Focus groups ranged in size from six to ten participants.

Focus groups, led by the researchers, all followed a semi-structured outline. The focus group discussions covered similar themes allowing for probes and questions. In two sites, a field officer organized the focus group and introduced the researchers. When necessary, she/he clarified or rephrased questions. The researchers took notes on the discussions.

Each focus group brainstormed the question: *What would one expect to see in the life of a woman who is doing well in the ENAM project?* The discussion was then directed to three main areas: micro-credit and savings, business enterprises, and child welfare. The aim was to reach consensus on what constituted 'success,' thereby establishing criteria for selection of case study participants and to understand participants' criteria for successful ENAM participation.

Each pair of SG representatives identified three participants whom they felt were doing well, and two whom they thought were not doing as well, based on the identified criteria. The 'votes' with the highest frequencies for 'successful' and 'less successful' determined the list of potential case study respondents. A total of two successful and one less successful participant/s were selected from each of the six CSA for a total of 18 (12 successful, 6 less successful) primary respondents.

The researchers conducted in-depth individual interviews with the 18 cases on life histories, ENAM experiences, and perceived successes, failures, and obstacles. Interviews were also conducted with secondary respondents (two other household members per case [n=36] and three SG members per case [n=54]) to document perceptions of ENAM's impacts on primary respondents' personal income and child nutrition, and factors underlying their successes or otherwise. Separate interview guides, first developed in English then translated into local languages, were used for the primary respondent, respondents' household members, and for her SG members. Informal interviews were conducted with two of the three project field officers to obtain their impressions.

The researchers carried out observations in the home of each primary respondent to document children's feeding and food intake, especially ASF. Observation time varied depending on the time used by the caretaker to prepare the evening meal – usually 1.5-2 hours in total. This included 18 'pantry inventories' where the following was noted: food in stock, quantities, and animal source food used for the evening meal. The intent was also to observe the preparation and serving of the evening meal to understand the content and distribution of animal source food among household members. Observations were unannounced and relatively unobtrusive to minimize influence on the respondent's behavior. In two cases, observations were mistimed and the evening meal was prepared and/or served before the researchers were on site, or it was carried out in an inaccessible part of the home. In all, there were 16 observations of evening meals.

ENAM records provided data on respondents' loans and savings histories, attendance and general appraisal. All interviews were conducted and recorded in the local dialects. Primary respondents' interviews were transcribed verbatim into English by one of the researchers (GYK) who was fluent in the local languages; interviews with secondary respondents were summarized in English prior to analysis.

The lead researcher (NAA) analyzed the transcripts and focus group notes, interviews and observations through an iterative process based on grounded theory methodology [15-17]. Notes and transcripts were reviewed for themes and relationships were

identified to generate explanations of factors leading to ‘successful’ and ‘less successful’ participation. The analysis began with a systematic review of the focus groups (process and transcripts) to ascertain individual characteristics and factors that caregivers felt were indicative of success. Concepts were verified with interview information. This provided an indication of what participants valued. The next step generated theoretical explanations of how success was achieved or not achieved. Content analysis of transcripts and observations generated themes around caregivers’ experiences which were collated into generalizations about successful women. While the focus was on ‘successful’ women, data from the ‘less successful’ women were used as a counterfactual to cross-examine the data.

Written informed consent was attained from all participants. The institutional review boards at Iowa State University, the University of Ghana, and McGill University approved this study.

RESULTS

Perceptions of success

Successful participation in ENAM was generally linked to performance in credit and savings activities, business enterprise development, and child welfare (Table 1). Across all ecological zones, the ability to repay loans, a good savings record, and the success of one’s business were the most salient concepts in defining successful participation. Child-related indicators focused on school attendance and physical appearance. The two groups of ‘successful’ and ‘less successful’ women had similar characteristics (caregivers’ age, parity, and education; children’s nutritional status) as documented by the ENAM baseline survey (data not shown). While there were differences in participants’ explanations of what contributed to successful (or less successful) participation, Figure 2 illustrates the researchers’ perception of the primary factors that helped women achieve success. Participants’ description of each of these factors is further elaborated below.

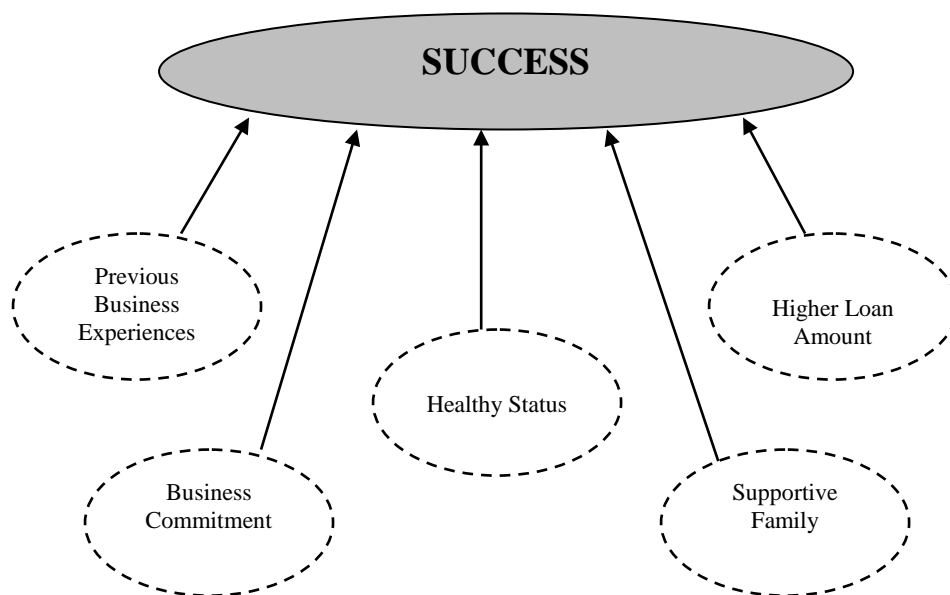


Figure 2: Factors that contributed to success (figure developed by authors)

1. Previous business experience

The level of experience a participant had in her chosen trade influenced success. The majority of women who were doing well were engaged in trades where they had previous experience. A high level of experience in one’s trade enabled women to predict seasonal fluctuations, source the cheapest goods, maximize profit, and successfully store goods. This quotation illustrates how one participant linked success to trade experience:

“I know Akosua (fictitious name) is not doing well because, although she is a fishmonger, she has not been in the business for a long time as others have. Those who were in the business already used the loans they obtained to expand their businesses by buying more fishing nets, but she had to start from scratch. I therefore attribute her lesser success to little experience in her line of business”.

2. Loan amount

Procedures used to identify participants’ IGAs included a community-wide ranking process, as well as a criteria-based ranking activity. The financial viability of each potential IGA was assessed. To support their IGAs, the women received weekly training in business entrepreneurship in addition to nutrition education [11]. Loan limits for different kinds of IGAs were set by ENAM [11]. Group members appraised the actual loans that participants received (up to prescribed limit). Higher loans provided opportunities to purchase more goods and to diversify the business, and meant expansion, larger profits and greater success.

3. Business commitment

Personal characteristics contributed to the final outcome. Women who did well were perceived to be committed, hard working, energetic and self-disciplined compared to less successful women. Most of these same attributes were identified by other participants when asked to explain why some individuals did better than others. Below, a SG member described a less successful participant:

“Dede (fictitious name) does not go down to the fishing bay to purchase her fish. She stays at home and waits for her husband to bring it to her. I think if she goes to the fishing bay herself she would ... get more fish because she could buy from others. I think she is just lazy and that is the reason she is less successful”.

Successful women showed a high level of commitment to project activities and the educational lessons, for example Afia (not real name) said:

“I know I am doing well and am more successful than other members. I believe in the project. I follow their lessons well and practice most of the things we are taught”.

4. Family members' influence

Family members exerted influence. Among women who were doing well the family was seen as ‘supportive’ or ‘helping.’ Having a spouse who contributed financially to the upkeep of the household was viewed as a great support. Among the cases examined, the majority of women who were doing well had other family members who helped them hawk their wares, and care for children and businesses when they traveled. One less successful woman lamented that she was not doing well because she had no support. On the other hand, the number of dependants in one’s household drained resources; this curtailed financial investments.

5. Health and physical strength

A few of the respondents who were not doing well attributed their lack of business progress to illness or lack of physical strength. When illness or pregnancy interfered, relatives and friends conducted business on their behalf. In some cases the loans were mismanaged. Some businesses required considerable physical strength. One less successful participant suggested that other women did better than her because they had a more profitable trade, for example, making and selling *kenkey*, a fermented maize meal staple. However, this business was not an option for her because she lacked the physical stamina for the rigorous mixing-cooking processes. She explained that a pregnancy-related illness prevented her from undertaking arduous tasks.

Translating success into improved family nutrition

Participation in the project augmented household income, which enhanced most respondents’ purchasing power, enabling them to include more ASF in family meals. Improved nutrition knowledge enabled some caregivers to dispel ASF-related restrictions— such as the belief in some project communities, particularly in the north,

that giving children eggs might make them prone to stealing (documented in content analysis). Consequently most respondents reported a general increase in ASF intake by their children. Figure 3 describes two possible pathways leading to an increase in children’s ASF intake. In the first, successful caretaker participation led to increased household income, which increased caregivers’ ASF purchasing capacity for children. In the second, the nutrition education improved caregivers’ nutrition knowledge leading to increased sensitization to the value of ASF in children’s diets, and the suppression of ASF-related taboos. The outcome was increased ASF intake among caretakers’ children [18].

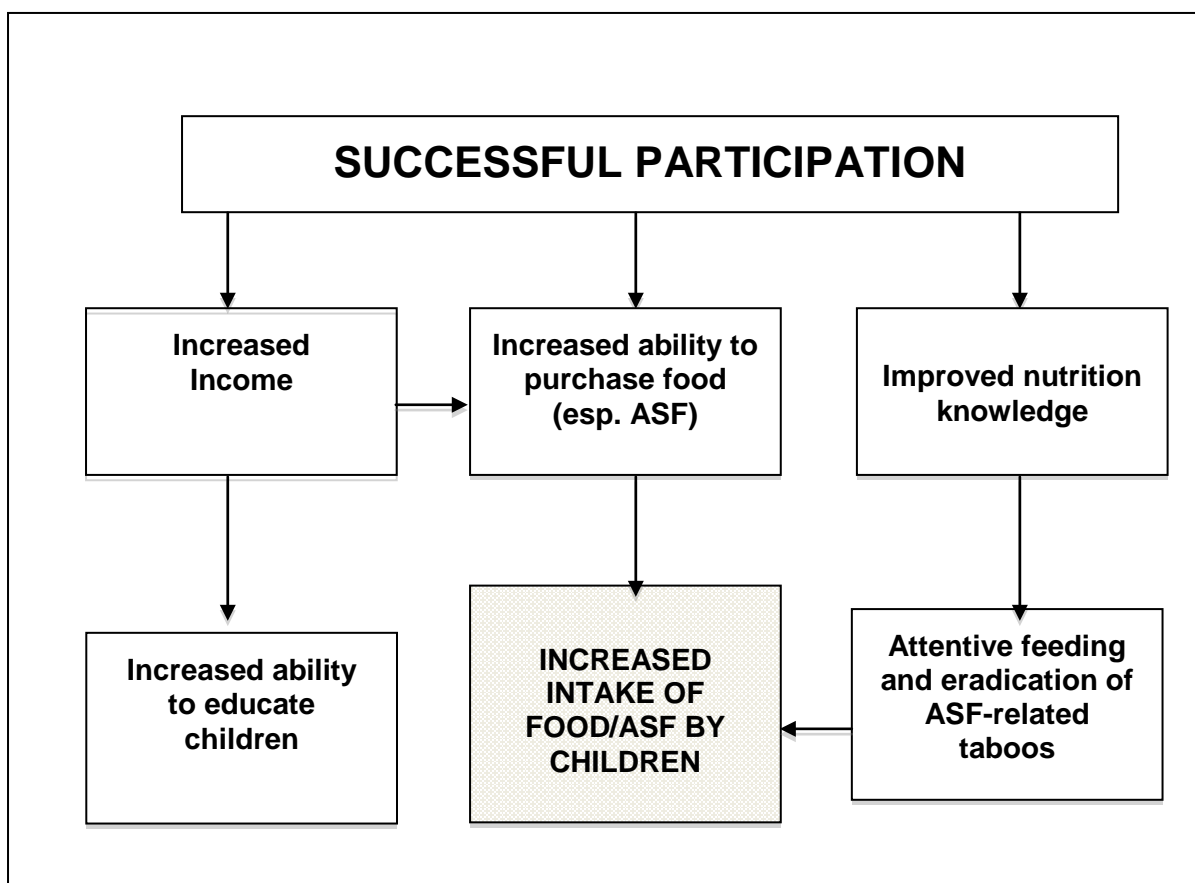


Figure 3: Factors underlying animal source food intake by children (figure developed by authors)

The following quotes from two different respondents supported these findings:

“It is true we were taught many things I practice some but do not have what it takes to practice others. I did not know that meat or eggs were good for children and would make them grow well. In our culture, meat is usually not given to children, so anytime I prepared food with meat, I would give the meat to the adults. As kids, our parents used to eat all the meat themselves and tell us that children do not eat meat. Now I know meat and eggs will make a child grow well and strong.”

Now I'm able to get more money both for my work and the children's upkeep. First, when I did not have such money, I was not making enough profit to look after the children. Or even if I needed to get something for them, it might take some time because I would have to work for a while to get it. But now, because of this loan, even after I have bought my supplies, I have enough left over to buy whatever my children need".

WHAT MATTERS? OVERCOMING BUSINESS CHALLENGES

Successful women applied other strategies to augment their investments besides the above 'success factors'. While having a higher loan amount was perceived as an advantage, some participants asserted that it was not simply a question of the loan amount one received, but its allocation. Successful participants put all or nearly all of their first loans into their businesses. In contrast, less successful participants rarely invested all of their loans in their businesses; some used a portion of their loans for household expenditures.

Investing in one business to finance another was another 'success' strategy. Some Navrongo fishmongers, for example, invested their loans in their husbands' fishing businesses. This guaranteed a constant supply of discounted fish, and it grew their husbands' businesses as well as theirs. In the following illustration, a less successful participant lamented:

"Some of the fishmongers have their own boats and this increases their catch. I do not have a boat on my own; neither does my husband.... When I buy from other people (fishermen or other fishmongers whose husbands have boats), I buy at a higher price. Definitely, our profit margin will not be the same. Some of the women have their own boats, which they give to their husbands or hire out. These women get the fish at a discount".

Business expansion and diversification worked for successful participants. Successful participants combined fast with slow selling items, and low-priced with more expensive products. They also had auxiliary enterprises besides their main IGA. Having a variety of goods to sell buffered market fluctuations, as explained by an SG member:

"Esi sells a variety of items like drinks, cola, porridge, and groundnuts. She is also a fishmonger. All these little businesses can give her a lot of money in a short time. Anytime business goes down for one thing, she can make money from the other".

Summary of Findings

Anecdotal evidence from case study respondents suggests that the greatest benefit from the ENAM experience was its translation into opportunities for obtaining microcredit, which helped increase business success, family life, and possibly children's nutrition – although it is harder to support the latter through case study data

alone. One way that this occurred was by adding to the household's income, which increased ASF purchasing capacity for children's needs. The other way it occurred was by improving caregivers' nutrition knowledge, which leads to increased awareness of the value of ASF in children's diets, and in some cases, the suppression of ASF-related taboos. The outcome, documented more precisely by other ENAM researchers [19, 20], was increased ASF intake among caretakers' children.

Women who were doing well before ENAM did even better as a result of ENAM. Generally, the most successful women were conscientious savers and cautious borrowers. Most did not use their withdrawals for household expenditures; rather, this money went into a business or another long-term investment. They also received larger sums of money through the microcredit program which gave them more financial freedom.

Even for women considered to be good caregivers before ENAM, there was some ambivalence about providing proper nutrition for their children if it meant their business might suffer. For these women, ENAM freed them from having to make a choice between their children and their business. Compared to child feeding, the business was more public. Thus, the microcredit component was viewed as the more salient part of the project compared to the nutrition education. While not the focus of the case study analysis, there was evidence that participation also contributed positively to individual development.

DISCUSSION

The microcredit-education link in the program generated both tangible and intangible benefits to the participants. Some respondents spoke directly about program benefits, for example, learning about the concept of saving was previously unknown even to better off traders. For others, saving took them 'off the hook' for having to lend money to family members since funds were not readily available. Another woman talked about her 'peace of mind' knowing she had something for emergencies or long-term goals like children's education. However, as the focus group confirmed, participants did not find it easy to comment on another person's 'success'. There was a tendency to talk more about the microcredit component since business outcomes were more visible through rewards (more loans, more profit) whereas it seemed more difficult to "see" the impacts of proper child feeding in the home.

Women's references to their children often referred to general upkeep or education, and less about diets, however they did see the connection between having money and better child nutrition. Even though respondents were aware that the goal of ENAM was to improve children's welfare, and were knowledgeable about the nutrition information they had received, assessing actual home nutrition practices through the case studies proved difficult. Without other forms of assessment, such as ENAM's food recall and the baseline survey[11], this type of information would be hard to identify. The microcredit-education program translated into less tangible personal outcomes such as improved relationships with customers and others. There were

numerous anecdotal examples of how participation in CSA activities enhanced self-confidence, perceived independence, and public speaking and teaching abilities.

While there are relatively few sub-Saharan African studies about the impacts of micro-credit on women and their households, research in Malawi found that women's self employment and access to credit enabled them to contribute more to household income and welfare, as well as increasing their personal and community status [21]. In Bangladesh, group-lending processes were found to improve health, although it raised the question of equity concerning the process itself. Microcredit may impact health status by: (i) serving as a learning platform for health and nutrition improvement; (ii) improving borrowers' quality of life, thereby reducing vulnerability, and increased expenditure on children's nutrition, health and education; (iii) assisting with health emergencies; and (iv) enhancing social capital leading to better health [22].

CONCLUSIONS

The objective was to understand, through a case study process, how a Ghana microcredit-education program impacted participants' daily lives. Within the project areas, the microcredit-education link seemed to have a positive impact on women's lives, small businesses, and personal relationships. However, it was easier for participants to talk about success (or lack of success) in terms of their business experiences. Five factors were attributed to participants' success in the program: previous business experience, higher loans, business commitment and hard work, supportive family members and good health and physical stamina.

While more difficult to verify with case studies alone, there was evidence that nutrition education imparted new knowledge to caretakers, and when associated with successful income generation activities, it may have helped to improve children's diets. In that sense, it may have been a learning platform such as proposed by Schurmann and Johnston [22]. Finally, because the case studies were combined with other ENAM research methodologies [11, 18], they proved valuable for documenting participants' experiences in the program and other personal, family and business impacts.

Table 1: Indicators defining successful participation in the ENAM project

Categories	Indicator Qualities
Credit and savings association performance	<ul style="list-style-type: none"> • Punctual and regular CSA meeting attendance • Regular and prompt repayments of loans • High (good) savings record • Commitment to group's activities
Business enterprise performance	<ul style="list-style-type: none"> • Expansion in size and variety in stock • Good working relations with colleagues and customers • Ability to re-stock goods • Hard working
Children's welfare	<ul style="list-style-type: none"> • Regular school attendance • Neatly dressed children • Well kept and tidy compound

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