



Urwaruka Rushasha (New Generation)

A Randomized Impact Evaluation of Village Savings and Loans Associations and Family-Based Interventions in Burundi

Jeannie **Annan**, PhD
Director, Research and Evaluation

Tom **Bundervoet**, PhD
Research and Evaluation Advisor

Juliette **Seban**, PhD
Research and Evaluation Advisor

Jaime **Costigan**, M.A
Child Protection Program Officer



USAID
FROM THE AMERICAN PEOPLE

This study was made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of the IRC and do not necessarily reflect the views of USAID or the United States Government.

TABLE OF CONTENTS

INTRODUCTION	4
WHY A VSLA INTERVENTION?	4
WHY FAMILY-BASED INTERVENTIONS	7
PROJECT OVERVIEW & EVALUATION STRATEGY	8
PROJECT OVERVIEW	8
<i>Target Population</i>	8
<i>The VSLA Intervention</i>	9
<i>Healing Families and Communities Discussion Sessions</i>	10
EVALUATION STRATEGY	11
<i>Timeline</i>	11
<i>The evaluation design</i>	12
<i>Formative Research</i>	13
<i>Data collection</i>	13
<i>Household Survey</i>	13
<i>Children's Survey</i>	17
<i>Qualitative Research</i>	17
<i>Monitoring data</i>	18
STATISTICAL ANALYSIS	19
LIMITATIONS	21
FINDINGS: VSLA PROCESS INDICATORS:	22
FINDINGS: THE IMPACT OF THE VSLA INTERVENTION ON ECONOMIC OUTCOMES OF PARTICIPATING HOUSEHOLDS	23
THE IMPACT OF THE VSLA INTERVENTION ON CONSUMPTION EXPENDITURES	23
THE IMPACT OF THE VSLA INTERVENTION ON POVERTY RATES	27
THE IMPACT OF THE VSLA INTERVENTION ON HOUSEHOLD ASSETS	29
FINDINGS: THE IMPACT OF THE VSLA INTERVENTION & THE HEALING FAMILIES AND COMMUNITIES DISCUSSION SESSIONS ON OUTCOMES FOR CHILDREN	34

SPENDING ON CHILDREN	34
CHILD LABOR	35
HARSH DISCIPLINE	37
POSITIVE DISCIPLINE	41
PARENT-CHILD COMMUNICATION	43
CHILD WELLBEING	44
CHILD MENTAL HEALTH	45
<i>Distress</i>	46
<i>Aggression</i>	46
FAMILY WELLBEING	47
DISCUSSION	49
CONCLUSIONS & RECOMMENDATIONS	52
Bibliography	54

INTRODUCTION

Burundi, one of the poorest countries in the world, is recovering from decades of conflict that claimed 300,000 lives and forced over a million to flee their homes. 68% of the 8.4 million people living in Burundi live below the poverty line¹ and the country falls at the bottom of the Global Hunger Index. Since 2003, over 450,000 refugees have returned to the country and the potential for political instability is high.

In this context, children face numerous risks to their development and wellbeing, including domestic and community violence and limited caregiver capacity to protect and care for their children. Despite significant investment by the humanitarian community, there has been little progress for children and we still know too little about what works to address the risks they face. The International Rescue Committee, a leading non-profit organization in the field of emergency relief and post-conflict development wants to change this. Through the Urwaruka Rushasha (New Generation) project, implemented with the support of USAID's Displaced Children and Orphans Fund (DCOF)², the IRC sought to have a positive impact on household poverty and child protection, development, and wellbeing, while generating evidence about how this can be effectively done. The project includes two interventions that we believe may be effective in improving caregiver capacity to protect and care for their children: a VSLA intervention involving the establishment of Village Savings and Loans Associations (VSLAs) and provision of entrepreneurship and financial literacy education, and a family-based intervention.

WHY A VSLA INTERVENTION?

The decision to include an economic component in the New Generation project was based on evidence that poverty is a strong predictor of poor wellbeing outcomes for children, and as such, economic interventions can have a positive impact on child protection, development, and wellbeing.

As seen in the findings of a number of recently published studies, there is increasingly strong empirical evidence of the correlation between poverty and child wellbeing³. Poverty is a predictor of poor child health and nutrition, increased maternal stress, poor maternal education, and neglect⁴. These factors lead to stunting, poor cognitive, motor, socio-emotional

¹ In 2005, the World Bank updated the “dollar a day” poverty line to “1.25 dollar a day” in 2005 PPP prices.

² USAID's Displaced Children and Orphans Fund (DCOF) works to provide care, support, and protection for the special needs of children at risk, including orphans, unaccompanied minors, children affected by armed conflict, and children with disabilities. DCOF supports the design, implementation, and monitoring of programs that provide evidence-based guidance or models of programs that can be expanded or replicated.

³ Engle et al (2009), Campbell et al (2010) and Akware et al (2010).

⁴ McGregor et al (2010)

development, and poor school achievement. There is also evidence that poverty contributes to child labor, low rates of school enrollment, and increased levels of violence in the home and against children themselves.

This evidence suggests that economic interventions may reduce risks to child protection, development and wellbeing. A growing body of research shows that cash transfers may be a particularly successful economic intervention. However, there is little evidence of which economic interventions work most effectively to improve household economic or child protection, development and wellbeing outcomes in the poorest and most vulnerable communities where cash transfers would be unsustainable and difficult to administer.

Microfinance—Popular but mixed results

Since the 1970s, a great deal of development aid has been channeled into microfinance (micro-credit and micro-savings) interventions aimed at reducing poverty and improving non-economic outcomes, particularly for women and children. However, despite the popularity of microfinance, as can be seen in a review of 15 microfinance programs in sub-Saharan Africa, there is little consistent evidence that it is effective in achieving improved economic or non-economic outcomes for the poor⁵. In fact, while studies generally show that micro-credit and micro-savings together have a positive impact on poor people's levels of savings, expenditure, and accumulation of assets, there is also evidence that microfinance, particularly micro-credit, may actually make people poorer.⁶

When it comes to child wellbeing outcomes, the results are similarly mixed. According to available evidence, there are indications that access to micro-credit may lead to improved food security, nutrition, and use of bed nets among children of micro-credit clients, particularly among children of female clients.⁷ However, evaluations of microfinance programs show mixed results when it comes to household expenditure on education and there is some evidence that shows decreased school attendance among the children of micro-credit recipients, particularly among girls⁸.

VSLA is a popular microfinance model⁹ with an estimated 4.6 million people enrolled in VSLA groups worldwide as of 2011¹⁰ and recent estimates closer to 7 million.¹¹ Though no rigorous

⁵ Stewart et al. (2010)

⁶ Ibid

⁷ Ibid

⁸ Ibid

⁹ The VSLA model differs from traditional microfinance in that the money for loans comes from the members themselves and the process of saving and lending is managed by the members of the group themselves.

¹⁰ The Economist. Small Wonder: A new model of microfinance for the poor is spreading (2011)

evaluations of VSLAs had been conducted at the time of the project design¹², several studies and anecdotal evidence suggested that the approach was promising, especially for very poor populations.

Entrepreneurship education was added to the New Generation VSLA intervention in hopes of increasing the economic impact of the program. There is little empirical evidence of the effects of entrepreneurship or financial literacy education on economic outcomes for the poor.¹³ However, there is some evidence (both empirical and anecdotal) that adding entrepreneurship education to financial services may enable entrepreneurs to move beyond subsistence to more profitable livelihoods.

Karlan and Valdivia's (2011) randomized impact study to measure the effects of business training is one example of a study that illustrates the potential for training to increase participants' assets. The study showed that adding business training component to an existing lending/financial services program for low-income Peruvian female micro-entrepreneurs increased profits for treatment groups.¹⁴ They also saw improvements in their cash flows; in particular, the findings suggested the trainings had helped participants learn and use strategies (e.g., by diversifying goods and services, reinvesting profits and maintaining financial records) to reduce vulnerabilities of their businesses. Another study, by Drexler, Fischer, and Shoar (2011)¹⁵ found that for small businesses in the Dominican Republic, financial literacy training had a positive impact on business outcomes, but that trainings that focused on basic accounting rules of thumb had greater impact than trainings that focused on principles based accounting rules.¹⁶

¹¹ As reported at the 2013 Oxfam Savings Group Conference.

¹² Today, preliminary results available from a randomized evaluation of the CARE VSLA program in Ghana indicate no impact on measures of household income or wealth. The results do show, however, an increase in female primary school enrollment by 2.5% and a 4 % increase in women's likelihood to speak at village meetings (Karlan, D. and Udry, C. (2012). *Impact of Village Savings and Loan Associations: Findings from Ghana*). Several RCTs from Uganda, Mali and Malawi have also been completed. There are currently no available results from the studies in Uganda and Malawi. However, results from the RCT in Mali show increased savings and lending, increased food security, and investment in livestock, but no change in income or health and education expenses ([Oxfam, \(2013\). Saving for Change: Financial inclusion and resilience for the world's poorest people](#)).

¹³ Consultative Group to Assist the Poor/The World Bank. (2011). *Latest Findings from Randomized Evaluations of Microfinance*.

¹⁴ Karlan and Valdivia. (2011).

¹⁵ Drexler et al. (2011).

¹⁶ Consultative Group to Assist the Poor/The World Bank. (2011). *Latest Findings from Randomized Evaluations of Microfinance*.

WHY FAMILY-BASED INTERVENTIONS

While caregivers' ability to protect and provide for their children undoubtedly relies in part on their economic circumstances, increased assets might not be enough. Evidence shows that non-economic factors such as harsh discipline practices, neglect, and exposure to violence in the home have a strong negative impact on children's development and wellbeing. On the other hand, positive parent-child relationships are linked to children's resilience in the face of traumatic events including disaster and conflict.¹⁷

At the time that New Generation was designed, there was an established evidence base for parenting interventions in high-income countries and some evidence that parenting programs can be effective in improving child wellbeing in middle and low income countries. However, there was and little evidence that existing parenting program models have the potential to address the most pressing risks influencing children's protection, development, and wellbeing in in conflict or disaster affected communities. Due to evidence indicating the importance of family-level interventions and the dearth of evidence-based interventions in low-resource, conflict affected countries, the IRC chose to develop and evaluate a family-based intervention consisting of ten discussion sessions developed at the country level.

Recently adding to the overall body of evidence around parenting programs, a January 2013 review of 12 RCTS of parenting interventions with 1580 parents in 9 low and middle-income countries found that the parenting interventions decreased harsh and abusive parenting and discipline practices; improved parental knowledge of and attitude towards child development; and improved parent-child communication and interaction¹⁸. However, of the 12 studies, only 2 were considered to be high quality and the authors highlighted that, "given the well-established evidence base for parenting interventions in high-income countries, and increasingly good evidence for their applicability across cultures and countries there is now an urgent need for more rigorously evaluated and reported studies" of parenting programs in countries with resource constraints.

¹⁷ Annan and Blattman (2008). Betancourt (2002). Sim et al. (2011).

¹⁸ Knerr et al (2013).

PROJECT OVERVIEW & EVALUATION STRATEGY

New Generation is a three-year project comprised of two components: 1) A VSLA intervention involving the establishment of Village Savings and Loan Associations (VSLAs) and the provision of entrepreneurship and financial literacy education and 2) Healing Families and Communities discussion sessions. The project, implemented by the IRC with funding from DCOF, was designed to address the risks facing children in the Makamba and Bujumbura Rural provinces of Burundi while filling gaps in evidence around 1) the impact of VSLA interventions on household economic outcomes and child wellbeing, and 2) the potential for parenting programs to improve child protection and wellbeing in poverty and conflict affected communities. An impact evaluation was integrated into the design of the project to explore the following questions:

1. Does a VSLA intervention¹⁹ improve economic outcomes of poor households?
2. Do the Healing Families and Communities discussion sessions offer additional benefits for child wellbeing beyond those that can be explained by increased economic outcomes? Or is money alone enough to improve child wellbeing in poor families?

PROJECT OVERVIEW

Target Population

The target population for the New Generation project was 1595 poor families with children in provinces with the highest percentage of returnees. The IRC selected for project implementation the southern province of Makamba, bordering Tanzania, and the western province of Bujumbura Rural, bordering the Democratic Republic of the Congo, (see Figure 1). As the base of a rebel movement in the late 1990s and early 2000s, Makamba saw heavy fighting and mass displacement, with thousands fleeing to refugee camps in Tanzania. In recent years, thousands of refugees have made the journey home and Makamba is now the province with the highest percentage of returnees in Burundi. Bujumbura Rural also suffered greatly as a result of the civil war. As a stronghold of the last remaining

FIGURE 1: Provinces of Intervention, Bujumbura Rural (East) and Makamba (South)



¹⁹ The VSLA intervention included and evaluated as part of New Generation includes the establishment of VSLAs and provision of standard VSLA training plus entrepreneurship and financial education training. For simplicity, the intervention package is referred to in this report as VSLA or VSLA intervention.

rebel group *Forces Nationales pour la Liberation* who laid down their arms in April 2009, Bujumbura Rural experienced 16 years of fighting. Both provinces are home to highly vulnerable populations.

The VSLA Intervention

Over the course of two project cycles (April 2010-March 2011 and June 2011-April 2012), the IRC established and supported a total of 80 VSLAs, representing 1595 vulnerable households from eight zones²⁰ in the Makamba and Bujumbura Rural provinces of Burundi.

VSLAs are self-selected groups of 15 to 25 members who save money by purchasing *shares* in the VSLA. Members can buy up to five shares per week and the cost of a share is set by the group at a rate that allows the poorest in the group to save. The savings are pooled into a loan fund from which members can borrow, potentially enabling them to overcome entry-barriers to more lucrative and reliable income-generating activities. Loans are repaid with an interest rate that is set and agreed upon by members (10% of the loan was typical). The interest on the loan is due after each four-week interval.

Each member's savings, loans, and repayments are noted in that individual member's passbook. To maximize transparency and accountability, transactions are carried out in front of the group members during weekly meetings. At the end of each meeting, any remaining funds not loaned out and the passbooks are put in a secure cash box. To avoid unauthorized transactions from taking place, the cashbox is locked by three different locks, the keys of which are held by different members.

At the end of the 12 month²¹ VSLA cycle, the accumulated savings and interest payments are distributed among the members. VSLAs typically have an average rate of return on savings of around 36% (see vslnet.org). Each group also had a social fund that allowed group members to take out emergency funds without interest.

VSLA groups receive a standard VSLA training that includes six sessions:

Session 1: Introduction to VSLA and election of group leadership.

Session 2: Policies regarding share purchase, savings, loans, and the solidarity fund.

Session 3: Development of VSLA ground rules/group constitution.

Session 4: How to organize a savings meeting and record money saved.

Session 5: How to count the money left in the fund and how to give credits.

Session 6: How to share out funds at the end of the cycle.

²⁰ A zone is an administrative division just under the commune – higher than the village and the hill.

²¹ This includes three months of training and nine months of actual savings and loans.

In addition to the standard VSLA training, all VSLA groups received an entrepreneurship and financial literacy education training package. The training package, developed by Making Cents International, included 10 sessions designed to improve VSLA participants' financial literacy and equip them with the skills they need to become "entrepreneurs of opportunity" rather than "entrepreneurs of necessity."

- Session 1: Introduction to Business
- Session 2: Your business and You
- Session 3: Increasing value
- Session 4: Business planning
- Session 5: Market information
- Session 6: Marketing
- Session 7: Cost calculation
- Session 8: Pricing
- Session 9: Archiving
- Session 10: Financial Planning

These sessions were provided during the same period as the Healing Families and Communities Discussion Sessions described below.

Healing Families and Communities Discussion Sessions

Over the life of the project, 39 of the 80 VSLA groups also participated in the Healing Families and Communities discussion sessions. The ten weekly discussion sessions were designed to increase the caregivers' knowledge of actions to improve their children's protection, wellbeing and development. Each session lasted two hours. Meetings were held on the same day as the VSLA meetings to avoid absenteeism.

The discussion sessions were developed by the IRC following a review of a series of existing parenting skills training materials from European and US-based organizations. The review was intended to identify modules that could be adapted to the local context and project needs. However, the program team found that there was no existing training curriculum that fully addressed the range of outcomes that the IRC hoped to achieve. As a result, the team designed the sessions themselves, drawing material for sessions on household financial management from the IRC's Women's Protection and Empowerment Unit's VSLA Discussion Guide, *Talking about Talking* and drawing some activities and inspiration from a gender-based violence community action discussion guide titled *Rethinking Domestic Violence: A Training Process for Community Activists*. To ensure that the training modules aligned with the intended project

outcomes and were appropriate for the local context, the training modules were informed by formative research and underwent an extensive review process by local IRC staff, the Child and Youth Protection and Development Coordinator, the Research Evaluation and Learning Unit, and the IRC's Child Protection Technical Advisor.

The topics in the 10 session Healing Families and Communities discussion series included: 1) children's perspectives and reality; 2) children's wellbeing and participation; 3) access to health and education; 4) positive discipline and communication; 5) child protection in the family; 6) child protection in the community; 7) daily life and income use in the household; and 8) family budgeting. For the ninth session, participants invited spouses and other family and community members to a public forum where the participants shared what they had learned and described the changes they pledge to make. In the final session, groups reflected on the previous sessions, evaluated the program, and discussed their pledges, possible challenges to upholding the pledges, and possible solutions.

EVALUATION STRATEGY

Timeline

The evaluation was a randomized controlled trial with two project cycles. Formative research was conducted with children and caregivers in December 2009 to inform the development of the quantitative and qualitative research tools. The pre-intervention survey, consisting of a quantitative household survey and a quantitative children's survey was conducted from January 2010 to March 2010 before the start of the project. From April 2011 to May 2011, after the end of the first project cycle, the IRC conducted a quantitative household survey, a quantitative children's survey and qualitative participatory research with children and caregivers. From June 2012 to July 2012, following the completion of the second project cycle, the IRC conducted a final household survey. The project timeline is presented in the figure below.

Figure 2: Project and Evaluation Timeline

Project Activities	Start Date	End Date
Formative research	December 14, 2009	December 19, 2009
Pre-intervention household survey and children's survey	January 2010	March 2010
First cycle of the project	April 2010	March 2011
First cycle household survey	April 2011	May 2011
First cycle children's survey and qualitative research with children	June 2011	July 2011
Second cycle of the project	June 2011	April 2012
Final household survey	June 2012	July 2012

The evaluation design

To form the VSLA groups, IRC staff visited the intervention provinces in late 2009 to “advertise” the program and call for applications of eligible individuals. The specifics of the project were explained to community members in the intervention areas and those interested in joining were encouraged to self-select into groups of between 15 and 25 persons. To be eligible, participants were required to have children living in the household and be willing to accept the conditions of VSLA group membership. At the end of this process, the IRC ended up with 77 self-selected groups representing 1,595 eligible households.

Following the completion of the pre-intervention survey, the 77 VSLA groups were randomly assigned to either a treatment group or the control group. The randomization was conducted through a public lottery in each of the eight intervention zones. Local officials and representatives from the VSLA groups were invited to witness the lottery.

During the lottery, each group drew a slip of paper from a box that contained 77 slips of paper of equal size. Forty groups drew papers labeled “VSLA 2010” and became the first-cycle treatment group. The 37 groups that selected slips of paper labeled “VSLA 2011” formed the control group for the first 12 month cycle. Half of the 40 first-cycle treatment groups were then randomly assigned to participate in the Healing Families and Communities discussion sessions.

At the end of the first cycle, in order to reach the original goal of 80 VSLA groups, three new groups were selected and included in the mid-term survey along with the other 77 groups. Following completion of the mid-term survey, these three new VSLAs groups along with the 37 control groups from the first cycle were randomized into two categories: one, made up of 21 groups, that would receive VSLA support only and the other, containing 19 groups, that would receive both VSLA support and the Healing Families and Communities discussion sessions (VSLA+). The original treatment groups (VSLA and VSLA+), having learned the VSLA methodology, were each expected to initiate a second 12 month VSLA cycle with minimal support from the IRC. Neither of the original treatment groups (VSLA or VSLA+) participated in Healing Families and Communities discussion sessions during the second project cycle.

In technical terms, the VSLA impact evaluation is a three-level, multi-site cluster randomized trial with household-level outcomes: “three-level”, because individual participants (households) are nested within VSLA groups, which are nested within zones (zones are administrative divisions of communes); “multi-site”, because there are eight zones of intervention; and “cluster randomized” because we randomized the self-selected VSLA groups (the “clusters”) rather than the individual households in the groups.

The figure below illustrates the evaluation design.

Figure 3: Evaluation design						
Pre-intervention Household Survey and Pre-intervention Children's Survey	Cycle 1: 2010-2011		Household Survey, Children's Survey, and Qualitative Research with Children	Cycle 2: 2011-2012		Final Household Survey
	VSLA 2010	20 groups		VSLA 2010 and VSLA+ 2010 groups continue VSLA activities with minimal support from the IRC		
	VSLA+ 2010	20 groups				
	Control 2010	37 groups		VSLA 2011	21 groups	
				VSLA+ 2011	19 groups	
	Total 2010	77 groups		Total 2011	80 groups	

Formative Research

The IRC conducted formative research over the course of 5 days in December 2009. This included participatory activities and focus group discussions with 80 children in Kabezi, Kayogoro, and Nyanza Lac, three communes located in the Bujumbura Rural and Makamba provinces. Free-listing interviews and key informant interviews were conducted with caregivers. During the interviews, caregivers were asked to name important problems their children faced and common symptoms they saw in children with these problems. The findings from the formative research were used to develop measures of child and family wellbeing. Following the formative research, surveys were developed and pretested.

Data collection

Quantitative data collection methods included a household survey and a children's survey administered prior to the intervention; a household survey and children's survey administered after the first project cycle; and a final household survey administered after the second project cycle. After the end of the second project cycle, only the household survey was administered due to time and staff constraints. Qualitative data was collected through participatory activities with children prior to the intervention and after the end of the first project cycle. VSLA process indicators were collected during each phase of the project.

Household Survey

The household survey was a standard multi-topic household questionnaire adjusted for the specific purpose of this project. After the household survey was developed and pre-tested, it was programmed into Personal Digital Assistants (PDAs) for the purpose of Computer Assisted Personal Interviewing (CAPI). Research has shown that CAPI not only reduces interview time relative to Paper Assisted Personal Interviewing (PAPI) but is particularly efficient in reducing

data inconsistencies and measurement errors. Interviews were conducted by trained interviewers in Kirundi after oral informed consent was given by respondents. Human subjects approval for the evaluation was granted by Innovations for Poverty Action.

Of the 1,595 households participating in the 77 self-selected VSLA groups at the beginning of the project, 1,548 were surveyed prior to the intervention. Those individuals included in the household survey were the household members who participated in the VSLA groups. People who dropped out of treatment groups were not included in the survey that was conducted after the end of the first project cycle. Those who dropped out of the control group were replaced by 300 new households at the end of the first cycle and were interviewed to enable the use of this survey as a starting point against which results from the final household survey could be compared. At the end of the first project cycle, the household survey was administered to 1,369 households: 1,069 from the original 1,595 households (67%) and 300 new households from the control group. The endline survey (administered at the end of the second project cycle) was administered to 778 of the 1,369 households interviewed at mid-term (57%).

The household survey collected data on household demographics, including levels of education, literacy and school absenteeism (for those children who go to school). Questions related to child well-being, child discipline, child mental health, parent-child communication and child labor were administered with reference to one specific child between 10 and 14 years old in the household. If the household had several children in the relevant age range, one of them was randomly selected to be the “reference child” for these modules. The survey also collected data on the following key outcome areas:

Key Outcomes Measured and Source/ Measure		Indicators
Economic outcomes	Household Consumption Expenditures	<ul style="list-style-type: none"> • Spending on most commonly consumed food items (based on a one week recall period) • Spending on common non-food items (based on a one month recall period) • Spending on non-recurrent, non-food expenditures
	Poverty Rate	<ul style="list-style-type: none"> • Estimation of the percentage of households below the poverty line based on household expenditures.
	Household Assets	<ul style="list-style-type: none"> • Ownership of common household goods (radio, bicycle, watch, mobile phone, bed and mattress) • Housing characteristics (building material, number of rooms) • Type of fuel used for cooking • Land ownership • Number of livestock
Child protection and wellbeing outcomes	Spending on children	<ul style="list-style-type: none"> • Spending on education for children in the household in the past year • Spending the previous month on the health and clothing of children in the household.
	Child Wellbeing Source: IRC Formative Research	Frequency during the past month that a reference child between the age of 10 and 14: <ul style="list-style-type: none"> • ate when hungry • was dressed well • studied well • had good health • had good behavior • was happy • had someone to provide support when it was needed.
	Child Labor Source: UNICEF MICS	<ul style="list-style-type: none"> • Hours of child labor (as defined by UNICEF) undertaken by children in the HH ages 5-9 in the past week. • Hours of child labor undertaken by reference child between the ages of 10 and 14.

	<p>Child Discipline</p> <p>Sources: UNICEF MICS, the Parental Acceptance/Rejection questionnaire and IRC formative research.</p>	<ul style="list-style-type: none"> • Caregivers' use of physical and psychological punishment against the reference child between the ages 10-14) in the past month. • Caregivers' use of alternative discipline practices with the reference child between the ages 10-14) in the past month. • Caregivers' belief in the necessity of physical discipline
	<p>Child Mental Health</p> <p>Source: IRC Formative Research</p>	<ul style="list-style-type: none"> • Distress: Frequency that the reference child between the ages of 10 and 14 experienced symptoms (feeling worried, feeling dizzy/ill because of bad thoughts and worries, feeling sad, being withdrawn, not playing with others, crying, and isolating oneself from others) in the past month according to the caregiver. • Aggression: Frequency that the reference child between the ages of 10 and 14 demonstrated behaviors (insulting others, not respecting others, being aggressive) in the past month according to the caregiver.
	<p>Parent-Child Communication</p> <p>Source: IRC Formative Research</p>	<ul style="list-style-type: none"> • Number of times the caregiver spoke to the reference child (between the ages of 10-14) about his/her material needs in the past month. • Frequency that caregiver was able to respond to a material need expressed by the child.
Family wellbeing	<p>Family Wellbeing</p> <p>Source: IRC Formative Research</p>	<ul style="list-style-type: none"> • Family functioning: Frequency within the past month that there was good understanding among family members, family members shared household work, and got along well with neighbors • Family problems: Incidences of violence among family members during the past month, where a family member sold property without consulting other family members, and when family members were intoxicated.

Children's Survey

The children's survey was administered prior to the intervention and at the end of the first project cycle to triangulate information reported by the caregivers. To determine which children to interview, 400 households who participated in the household survey and had at least one child between 10 and 14 years old were randomly sampled. For these households, the children's questionnaire was administered to the child who was selected as the "reference child" in the household survey. The children's questionnaire covers the following topics: education; child wellbeing; child discipline; child labor; child mental health; and family wellbeing. The children's survey was carried out by IRC Child Protection Officers prior to the intervention and after the first project cycle. A paper-based format was used. During the pre-intervention survey, 362 children were interviewed. After the end of the first project cycle, 262 children (148 girls and 114 boys) were interviewed. This figure includes 179 of the children who participated in the pre-intervention survey as well as 83 new children who had been added to replace those who had dropped out or could not be found. The average age of the participants was 12.4 years.

Qualitative Research

In order to feed into and complement the quantitative research, the IRC conducted participatory activities with the children surveyed prior to the intervention and at the end of the first project cycle. A participatory "timeline exercise" was also conducted with 39 caregivers in the VSLA+ group and with 20 children between the ages of 8 and 15 who had caregivers in the VSLA+ group.

The following chart shows the topics, research questions and participatory activities that were conducted. See the midterm qualitative report for full description of methods and findings.²²

²² The International Rescue Committee. (2011). "Urwaruka Rushasha (New Generation): Improving the Wellbeing of Vulnerable Girls and Boys in Burundi: The results of participatory activities with children, Mid-Term Evaluation: Design and Findings."

<i>Theme</i>	<i>Research questions</i>	<i>Participatory exercise</i>
Discipline	Are discussions around discipline (linked to the body maps) changing? What are children saying about the feelings they have linked to different body parts? Are discipline methods changing?	Body Maps
Problems and Social Environment	Are changes taking place in the children's social environment? What are the problems children are facing? Are these changing over time? Do children have people they can talk to about their problems? Who are these people? Is this changing over time?	Spider Diagrams
Significant changes in children's lives	What changes are taking place in children's lives? What significant events have taken place in the last 6/12 months? Are any of these linked to the project?	Time Line
Communication	Are children able to talk to their parents/caregivers about their needs and feelings? How often can they do this? Are their needs met? How do they negotiate for what they need?	Time Line, Spider Diagrams, Wishes for 2010/2011
Relation / Quality	How much time do children get to spend with their parents? Do children play with their parents? Are children able to talk to their parents?	Time Line
Sense of Agency	Do children feel free of their lives? Can children decide their lives? Do children have a say in their time? Do children have a say in how they manage their time? Do children have time to play?	Time Line, Spider Diagrams, Wishes for 2010/2011, Spider Diagrams, Wishes for 2011/2011

Monitoring data

Process indicators (accumulated savings, # of loans disbursed, loan size, and rate of return) were examined to see the extent to which VSLAs were effective in delivering basic financial services. They were gathered on a monthly basis during the VSLA cycles.

STATISTICAL ANALYSIS

There were three different strategies for analyzing the data.

For analysis of the VSLA intervention's impact on economic outcomes:

To estimate the effect of **the VSLA intervention** on economic outcomes, we use the data from the surveys conducted with both VSLA groups and the control group after the first project cycle. The econometric specification below was used:

$$Y_{i,1} = \alpha + \beta VSLA_{i,1} + \gamma Y_{i,0} + \varepsilon_{i,1}$$

$Y_{i,1}$ is the outcome of interest (consumption or assets) for household i after the first project cycle. $VSLA_{i,1}$ is an indicator variable indicating participation in VSLAs (the treatment), and $Y_{i,0}$ represents the pre-intervention value of the outcome of interest for household i . In this specification, $\hat{\beta}$ is an unbiased estimator of the average treatment effect (if randomization was carried out properly).

We also compared the results of the first specification to those obtained by using the difference-in-differences analysis. The difference-in-differences specification is:

$$Y_{i,t} = \alpha + VSLA_i + SR_t + \beta(VSLA_i * SR_t) + \varepsilon_{i,t}$$

Where $VSLA_i$ is an indicator variable taking on 1 if the household is in a VSLA group, SR_t a dummy variable indicating the survey round (0 for pre-intervention survey and 1 for follow-up) and the interaction term ($VSLA_i * SR_t$) taking on 1 if the VSLA intervention affected household i in time t . β is again the estimated treatment effect. This specification did not make any material difference from the first estimation.

For the analysis of the VSLA intervention's impact on children's outcomes:

To estimate the effect of the **VSLA intervention** on child outcomes we use the data from both the VSLA group and the control group after the first project cycle and use the first specification described above.

For analysis of The Healing Families and Communities discussion sessions impact on children's outcomes:

To measure the impact of the Healing Families and Communities discussion sessions on children's outcomes compared to those in the VSLA only, we use data from the surveys after the first project cycle and after the second project cycle. We compared VSLA groups from the 1st and 2nd cycle to VSLA+ from the 1st and 2nd cycle. The specification used is described below:

$$Y_{i,1} = \alpha + \beta VSLA_{i,1} + \varepsilon_{i,1}$$

With $Y_{i,1}$ being the outcome of interest of the reference child from the household i at follow-up, $VSLA_{i,1}$ an indicator variable of participation in VSLA+ (equal to 1 for VSLA+ and to 0 for VSLA). In this specification, $\hat{\beta}$ is an unbiased estimator of the average treatment effect.

For the outcomes on which we had a starting point, we also ran this second specification:

$$Y_{i,1} = \alpha + \beta VSLA_{i,1} + \gamma Y_{i,0} + \varepsilon_{i,1}$$

Where $Y_{i,0}$ is the starting point value of the outcome of interest for household i , this value can come from the pre-intervention survey or the survey after the first project cycle.

As this second specification did not reveal any differences in results, we only reported the result from the first specification in this report

LIMITATIONS

There are several limitations to this evaluation. First, the evaluation uses self report, which has the potential for social desirability bias. Participants in the Healing Families and Communities discussion modules may be more likely to provide answers they think the interviewers want to hear whether or not their behavior has changed. However, including both the caregiver and children's report allowed us to triangulate the data and one would assume that the children, who were not directly involved in the program, would be less biased. In most cases, the results of the children's survey indicated that the Healing Families and Communities discussion sessions had more positive impact than was seen from the results of the household surveys. Unfortunately, we were not able to collect children's data after the second project cycle due to time and staff constraints. Second, the scales for measuring child and family outcomes were based on qualitative interviews. While this has the advantage of addressing contextual and cultural relevance, the reliability and validity of these measures have not been previously tested nor can we compare the measures directly to other studies.

Moreover, due to considerable drop-out during each cycle of the project, only a part of the original sample of households was interviewed for the two follow-up surveys. Due to the fact that randomization was done at the VSLA group level this drop-out only marginally lowers the evaluation statistical power. However, if the drop out was selective, in the sense that less wealthy and less educated households were more likely to drop out of the VSLA group for example, this could introduce a selection bias.²³ Controlling for the starting point values of the outcomes and performing sensitivity analysis alleviate this concern but only partially; this potential attrition should have been anticipated to put in place better tracking mechanisms at the start of the project.

Finally, it would have been ideal to have had a control group for both project cycles. This would have provided a larger sample size and therefore higher statistical power, enabling us to accurately assess the impact of VSLA participation on family and child outcomes. It would have also enabled us to determine the impact of the VSLA intervention on economic outcomes after two project cycles. Having a control group throughout both project cycles was not seen as ethical or practically feasible in this project.

²³ Looking at attrition after the first project cycle, we found that treatment drop-outs were on average less educated and less wealthy (lower score on the asset index) meaning that the post-intervention treatment group is a privileged sample of the pre-intervention treatment group. Sensitivity analysis was performed to gauge the importance of selective attrition.

FINDINGS: VSLA PROCESS INDICATORS:

VSLA process indicators (accumulated savings, # of loans disbursed, loan size, and rate of return) from the first and second project cycles are presented in the table below.

**Table 1: VSLA Process Indicators from the both project cycles:
Accumulated Savings, # of Loans Disbursed, Loan Size, and Rate of Return**

	1 st cycle	2 nd cycle	All
# of VSLAs	40	44	84
# of Members	928	1,006	1,934
Accumulated Savings (PPP* USD)	52,250	111,231	163,481
# of Loans Taken Out	3,108	4,304	7,412
Accumulated Value of Loans (PPP USD)	135,409	284,631	420,040
Average Loan Size (PPP USD)	43.6	66.1	56.7
Average Return on Savings (%)	47.8	44.98	46.4

*Based on Purchasing Power Parity (PPP) exchange rate of USD 1= BIF 593.6

The first column presents the indicators for the 40 first cycle VSLAs. Process indicators for the second cycle VSLA treatment groups are presented in the second column.²⁴

Overall, the 1,934 members of both VSLA cycles managed to save USD 163,481 (BIF 97,042,321) during the first cycle: an average of USD 85 per member. A total of 7,412 loans were disbursed, for a cumulative value of USD 420,040. Average loan size amounted to USD 56.7 (BIF 33,657).²⁵ On average, VSLAs participating in the first cycle of the project received a 46.4% return on savings.

Overall, the process outcomes for the first VSLA cycle are impressive and justify the conclusion that the **VSLAs were highly effective in delivering basic financial services to project participants.**

²⁴ Among the 44 VSLA groups on which we have process indicators in the second cycle, only 40 were part of the evaluation sample.

²⁵ According to VSLA methodology, the value of a loan cannot exceed three times the cumulative savings of a person. Hence, loan value is rather small at the beginning of the cycle and grows bigger as participants accumulate more savings.

FINDINGS: THE IMPACT OF THE VSLA INTERVENTION ON ECONOMIC OUTCOMES OF PARTICIPATING HOUSEHOLDS

To determine the impact of the VSLA intervention on household economic outcomes, at the end of the first project cycle, we examined consumption expenditures, poverty rate, and household assets. Findings are based on a comparison of those households that participated in the first cycle VSLAs and those who were in the control group during this first project cycle. Economic outcomes from the second project cycle are not presented as there was no control group (no group receiving no VSLA treatment) in the second project cycle against which the VSLA groups could be compared. The study was designed so that there would be adequate statistical power to determine the impact of VSLAs at the end of the first project cycle.

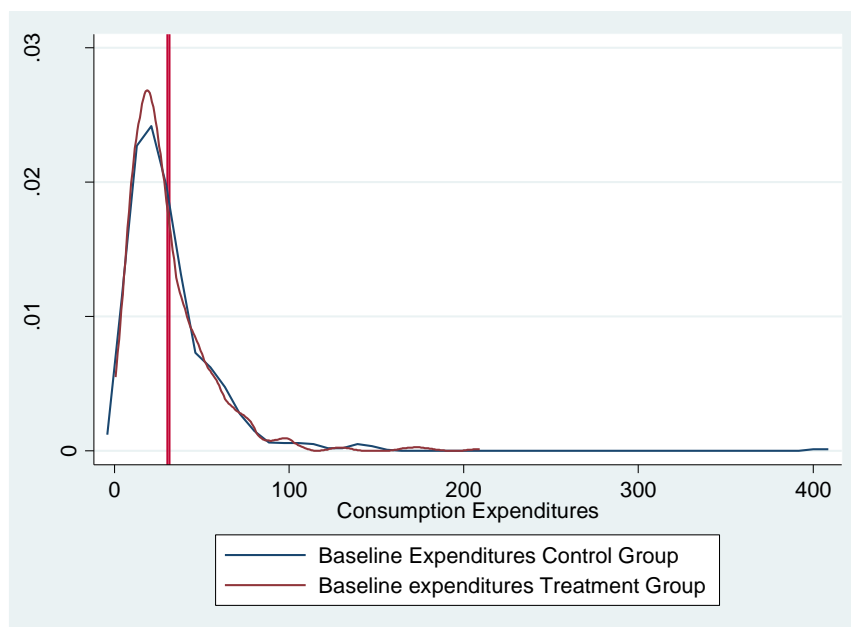
THE IMPACT OF THE VSLA INTERVENTION ON CONSUMPTION EXPENDITURES

Measures of consumption expenditures included spending on food items, non-food items, and spending on non-recurrent expenditures. Measures of spending on food items included spending on food items that are the most commonly consumed food stuffs in rural Burundi and was based on a one week recall period. Measures of spending on non-food consumption items include the frequently consumed non-food items (batteries, candles, etc.), used a one-month recall period, and included purchases, in-kind gifts and own-consumption (in case items were bought earlier but only consumed in the month preceding the survey). Survey questions around non-recurrent expenditures focused on rare, non-food expenditures such as those related to schooling, health, housing, ceremonies, clothing, etc.

Average monthly consumption expenditures during the pre-intervention survey were slightly lower in the treatment group than in the control group: food consumption prior to the intervention amounted to USD 28.1 per capita per month for the treatment households vs. 28.5 for control households, and total expenditures amounted to USD 30.3 and USD 31.5, respectively. Despite average expenditures being somewhat lower in the treatment group prior to the intervention, overall the distributions and means of the two groups are very similar (see Figure 4). Note that Figure 4 only takes into account the 1,069 households that were interviewed in both survey rounds (and does not include the households that were interviewed prior to the intervention but dropped out).

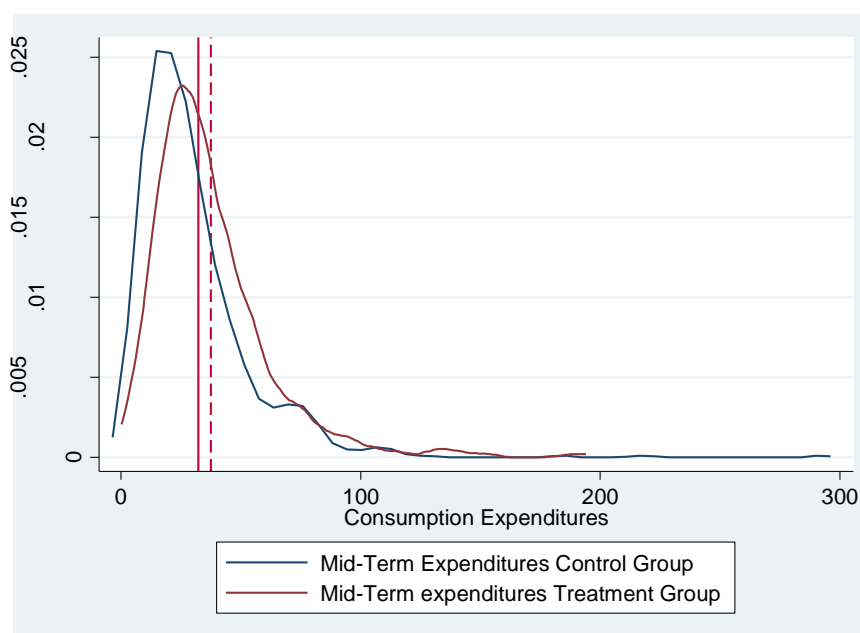
Figure 5 shows the distribution and mean of expenditures during the household survey that was conducted following completion of one 12-month cycle of the VSLA intervention. The results illustrate that there has been an important shift in the distribution of expenditures for the treatment group: distribution of the treatment group's per capita consumption expenditures shifted to the right and is clearly distinguishable from the control group distribution (in contrast to the distributions prior to the intervention, see Figure 4).

Figure 4: Mean and Distribution of Per Capita Consumption Expenditures Prior to the Intervention



Notes: Vertical lines represent pre-intervention mean consumption expenditures for treatment (full line) and control (dashed line) households. Expenditures are in USD.

Figure 5: Mean and Distribution of Per Capita Consumption Expenditures at the End of the First 12 Month VSLA Cycle



Notes: Vertical lines represent pre-intervention mean consumption expenditures for treatment (full line) and control (dashed line) households. Expenditures are in USD.

Following the intervention, the mean per capita consumption expenditures of treatment households was USD 37.7. This is USD 5.8 higher than the mean per capita consumption expenditures of the control households (USD 31.9), a difference statistically significant at the 1% level. Figure 6 summarizes the change in food and total expenditures between the pre-intervention survey and the survey conducted after the first project cycle. For the treatment households, food expenditures increased from USD 28.1 prior to the intervention to USD 30.5 after the first project cycle, an increase of 8.4%. At the same time, food expenditures for control households *decreased* from USD 28.5 to USD 25.8. Total expenditures increased for both treatment and control households, though the increase is much higher in the treatment group (24.4%) than in the control group (1.3%). The net impact of the VSLA intervention amounts to USD 7 per capita per month (BIF 4,155). The impact is statistically significant at the 5% level. **For an average family of 5.8 members, this implies an increase in monthly expenditures of 40.6 USD as a result of the VSLA intervention.**²⁶

To appreciate the magnitude of the VSLA intervention's impact on consumption expenditures, it is informative to compare the size of the impact (7 USD per capita per month) with consumption expenditures in the sample prior to the intervention (30.4 USD). This means that the magnitude of the VSLA intervention's impact equals 23% of pooled baseline expenditures. This is by all means a substantial impact.²⁷

²⁶ Because the baseline (January to March 2010) and the midterm (April to May 2011) surveys were conducted during different seasons, with the period between January and April typically being a difficult period for agricultural households in Burundi, we would expect average consumption to be higher during the mid-term survey, regardless of whether the household was in the project (treatment household) or not. This, however, has no implication for the results of the impact evaluation: Since treatment and control households live in the same geographical area and are subject to the same agricultural seasons and climatic conditions, any seasonal and climatic effects are cancelled out by the randomized design.

²⁷ As mentioned before, the substantial rate of drop-out during the project likely introduces bias in the results. The direction and magnitude of the bias depends on the outcome evolution of the drop-outs had they not dropped out. To examine the sensitivity of the treatment effect estimated in Table 2, we estimated the mean treatment effect under various missing data assumptions (see for instance Karlan and Valdivia (2010) for a similar approach). The results of the sensitivity analysis were presented in more details in the mid-term report. We found reassuring result: Even under a modest lower bound scenario we find a positive and statistically significant impact of the intervention.

Recently, researchers have argued that if autocorrelation in outcomes (in our case: consumption expenditures) is low, the ANCOVA estimator is more efficient than the difference-in-differences estimator (McKenzie, 2011). Since in our data, correlation between baseline and mid-term consumption expenditures is lower than 0.5 (0.2695) the ANCOVA estimator will be more efficient than the DiD presented in Table 3. This estimation strategy results in a treatment estimate of *USD 5.7*, which comes close to the difference- in-differences estimator presented in Table 2 (*USD 5.8*). The ANCOVA estimator is statistically significant at the 1% level (compared to 5% for the DiD estimator), which highlights the increase in power gained through ANCOVA estimation.

It is worth noting that the pre-intervention survey and the survey that was conducted at the end of the first cycle were not conducted at the same time of year. This could explain some of the differences seen in expenditures. However, the comparison between the VSLA group and control group is still valid.

Figure 6 : Impact of the VSLA Intervention on the Monthly Expenditures of Treatment and Control Groups: A Comparison of Results Prior to the Intervention and After the First Project Cycle (in PPP USD)

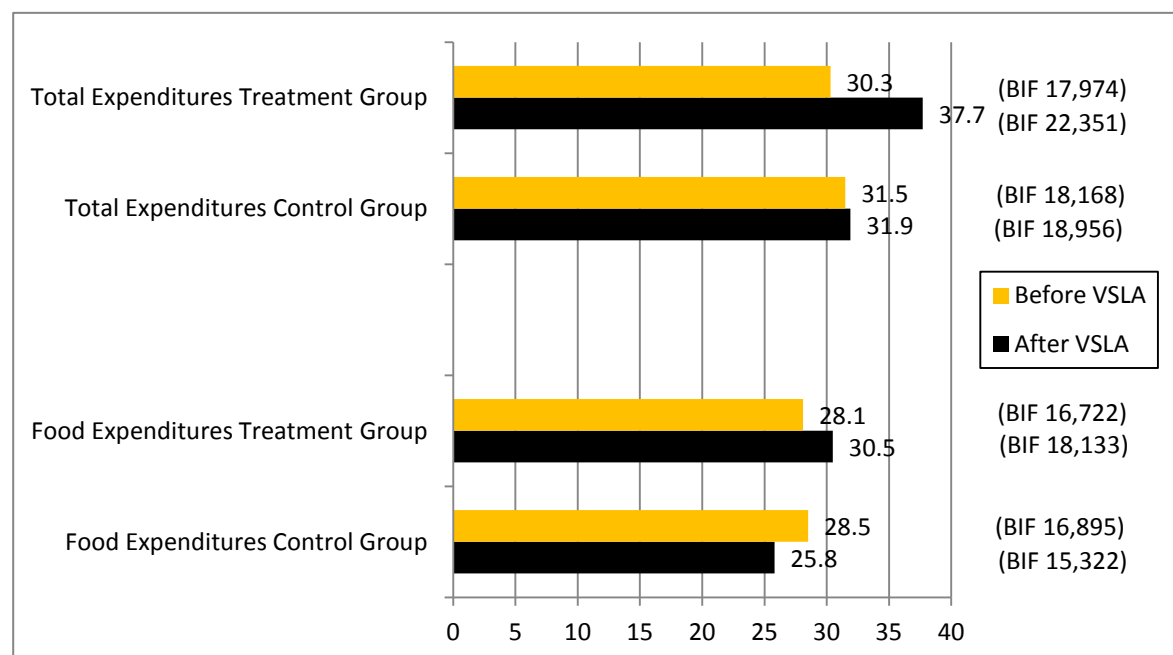


Table 2: Difference-in-Differences Regression of Per Capita Consumption Expenditures (BIF) on VSLA Participation

	Control Households	Treatment Households	Difference
Total Expenditures Before VSLA	31.5 [1.83]	30.3 [1.53]	-1.2 [2.39]
Total Expenditures After VSLA	31.9 [1.53]	37.7 [1.25]	5.8*** [2.0]
Difference	0.4 [1.5]	7.4*** [1.69]	7** [2.25]

Notes: Standard errors clustered at the VSLA level to account for clustered randomization; Dummies for strata included; ***: Statistically significant at 1%; **: Statistically significant at 5%. VSLA impact estimator in bold. Figures in PPP USD

THE IMPACT OF THE VSLA INTERVENTION ON POVERTY RATES

Using the World Bank international poverty line of USD 1.25 (in 2005 PPP prices-see Box)²⁸, one can estimate that 65.7% of the 1,069 households surveyed were below the poverty line prior to the intervention (that is, they had per capita expenditures lower than USD 1.25 a day). After the first project cycle, 68.5% of the households were below the poverty line, an increase of 2.8 percentage points.

As shown in Table 3 and Figure 7, the net increase in poverty masks differences in trends for treatment and control group households. While the percentage of control group households living below the poverty line *increased* from 65% to 75% (a 10% increase), the incidence of poverty *decreased* from 67% to 63% (a 4% decrease) among the households who participated in the VSLA intervention. Although the decrease in rates of poverty seen among the treatment households just misses statistical significance at conventional levels, the results indicate that the treatment households were able to resist a general trend towards greater poverty in rural Burundi. **The net impact of the VSLA intervention amounted to a 14% reduction in poverty.** This is strongly significant at the 1%-level.

In 2005, the World Bank updated the “dollar a day” poverty line to “1.25 dollar a day” in 2005 PPP prices. To make the expenditure data from our survey comparable to the 1.25 dollar a day line, we deflated the 2011 expenditure data to 2005 prices (using data on inflation from IMF) and then applying the 2005 PPP exchange rate of USD 1=BIF 342.9.

Table 3: Impact of the VSLA Intervention on the Percentage of Families Living Below the Poverty Line

	Control Households	Treatment Households	Difference
Poverty Headcount Before VSLA	0.65 [0.022]	0.67 [0.020]	0.02 [0.045]
Poverty Headcount After VSLA	0.75 [0.020]	0.63 [0.020]	-0.12*** [0.028]
Difference	0.1*** [0.027]	-0.04 [0.028]	-0.14*** [0.041]

²⁸ Ravallion et al (2008)

Figure 7: Impact of the VSLA Intervention on the Percentage of Families Living Below the Poverty Line

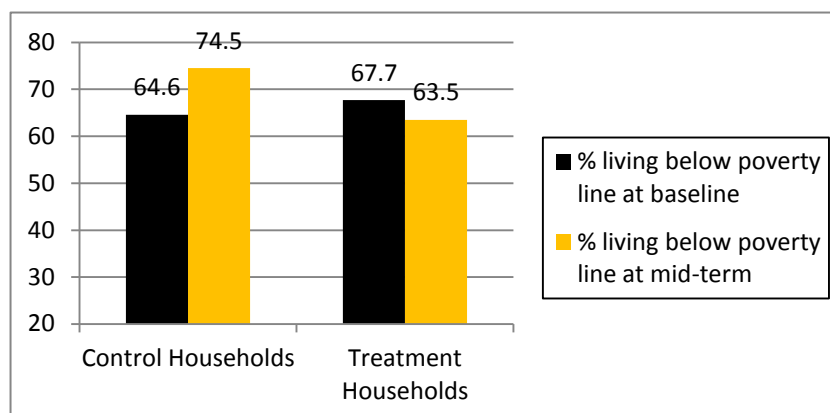


Table 4 shows that **poverty is more persistent in the control group than in the treatment group**: of all control households that were below poverty prior to the intervention, 85.7% were still below the poverty line after the first project cycle, showing little upward economic mobility in the control group. In the treatment group, 30% of households who were below the poverty line prior to the intervention managed to cross the poverty threshold. This is twice as high as the proportion in the control group.

Table 4: Moving in and Out of Poverty, Treatment and Control Households

	Control Group	
	Below Poverty Line After First Project Cycle	Above Poverty Line After First Project Cycle
Below poverty line prior to the intervention	85.7	14.3
Above poverty line prior to the intervention	54.1	45.9
<hr/>		
	Treatment Group	
	Below Poverty Line After First Project Cycle	Above Poverty Line After First Project Cycle
Below poverty line prior to the intervention	70.1	29.9
Above poverty line prior to the intervention	49.7	50.3

At the same time, more households that were not below the poverty line prior to the intervention managed to stay above the poverty line after the first project cycle in the treatment group (50.3%) than in the control group (45.9%), although this difference is small.

THE IMPACT OF THE VSLA INTERVENTION ON HOUSEHOLD ASSETS

Measures of household assets included ownership of common household (HH) goods (radio, bicycle, watch, mobile phone, bed and mattress); housing characteristics (material of floors, roofing, and walls; number of rooms); type of fuel used for cooking; land ownership; and number of livestock.

Obtaining assets requires a considerable lump sum investment. Because of this, and because the first cycle in any VSLA is typically characterized by relatively low values of shares and small loans,²⁹ there is reason to believe that a single VSLA cycle will have a minimal impact on members' assets. However, as can be seen in Table 5, which presents the change in asset ownership for treatment and control households, the New Generation VSLA intervention significantly increased household assets.

The difference between columns (3) and (1) shows the change in asset holdings of treatment households between the pre-intervention survey and the survey that was conducted after the first project cycle. **These results show large increases in asset ownership for the treatment households between baseline and the end of the first project cycle:**

- 16 % increase in ownership of radio
- 11 % increase in ownership of bicycle
- 13 % increase in ownership of mobile phone
- 14 % increase in ownership of bed
- 13 % increase in ownership of mattress
- 63% increase in number of Tropical Livestock Units³⁰

The difference between columns (4) and (2) shows the change in asset holdings for control households between the pre-intervention survey and the survey that was conducted after the first project cycle. Asset holdings of control households also increased:

- 4 % increase in ownership of radio
- 3 % increase in ownership of bicycle
- 10 % increase in ownership of mobile phone
- 9 % increase in ownership of bed

²⁹ According to experienced practitioners, the more important effects of VSLAs start showing after approximately three cycles (personal communication with Hugh Allen of VSL Associates in Bujumbura, 2010).

³⁰ Tropical livestock units (TLU) are used to make different species of livestock comparable to arrive at a single aggregate indicator of livestock holdings. One head of cattle equals 0.7 TLU, one goat and one sheep 0.1 TLU, one pig 0.2 TLU and one chicken and one rabbit 0.01 TLU.

- 9 % increase in ownership of mattress
- 41% increase in number of Tropical Livestock Units

Table 5: Change in Asset Holdings for Treatment and Control Households

	Baseline (Jan-Mar 2010)		End of First Project Cycle (Apr-May 2011)	
	(1)	(2)	(3)	(4)
	Treatment	Control	Treatment	Control
Owns Radio	0.35	0.31	0.51	0.35
Owns Bicycle	0.23	0.21	0.34	0.24
Owns Watch	0.13	0.12	0.2	0.17
Owns Mobile Phone	0.17	0.17	0.3	0.27
Owns Bed	0.56	0.61	0.7	0.7
Owns Mattress	0.13	0.13	0.26	0.22
Lives in House with Brick Walls	0.45	0.47	0.62	0.62
Lives in House with Iron Roof Sheeting	0.7	0.72	0.69	0.66
Lives in House with Concrete Floor	0.03	0.03	0.05	0.05
Number of Rooms in House	2.32	2.18	2.49	2.36
Uses Charcoal for Cooking	0.061	0.054	0.14	0.1
Owns Land	0.57	0.57	0.65	0.65
Number of Tropical Livestock Units	0.126	0.093	0.206	0.131
Asset Index	0.050	0.039	0.107	-0.125
N	578	491	578	491

Although both the treatment and the control group experienced a net increase in asset holdings over the course of the intervention, the increase for treatment households is consistently higher than the increase for control households. This translates into an improvement in the asset index for treatment relative to control households. While the average score on the asset index was higher for treatment households than for control households, prior to the intervention, the standardized difference was only 0.011. After the first project cycle, this difference had increased to 0.234 highlighting the growth in asset holdings in the treatment group between the pre-intervention survey and the survey that was conducted after the first project cycle. As reflected in Table 6, **the net impact of the VSLA intervention amounts to 0.222, meaning that on average, a household that participated in the VSLA intervention has an asset score that is 0.222 higher than a control household. This corresponds roughly to one extra head of cattle for each of the treatment households.**

Table 6: Difference-in-Difference Estimation of the Impact of the VSLA Intervention on Asset Holdings

	Control Households	Treatment Households	Difference
Asset Score Before VSLA	0.039 [0.091]	0.050 [0.078]	0.011 [0.120]
Asset Score After VSLA	-0.125 [910.6]	0.107 [0.042]	0.234** [0.105]
Difference	-0.164*** [0.053]	0.057 [0.057]	0.222*** [0.078]

Notes: Standard errors clustered at the VSLA level to account for clustered randomization; Dummies for strata included; ***: Statistically significant at 1%; **: Statistically significant at 5%. VSLA impact estimator in bold.

Figures 8 and 9 illustrate the shifting asset position of treatment households. Prior to the intervention, the distribution of the asset index for treatment (red curve) and control (blue curve) households largely overlap. The dashed and full vertical lines, representing the average score on the Asset Index for treatment and control households, are similar. After the VSLA-intervention, however (Figure 8), the distributions are clearly distinct, with the treatment distribution being located to the right of the control distribution. The dashed vertical line (treatment households) is now located well to the right of the full vertical line (control households). This points towards higher asset accumulation for treatment households during the intervention.

Figure 8: Distribution of the Asset Index for Treatment and Control Households prior to the Intervention

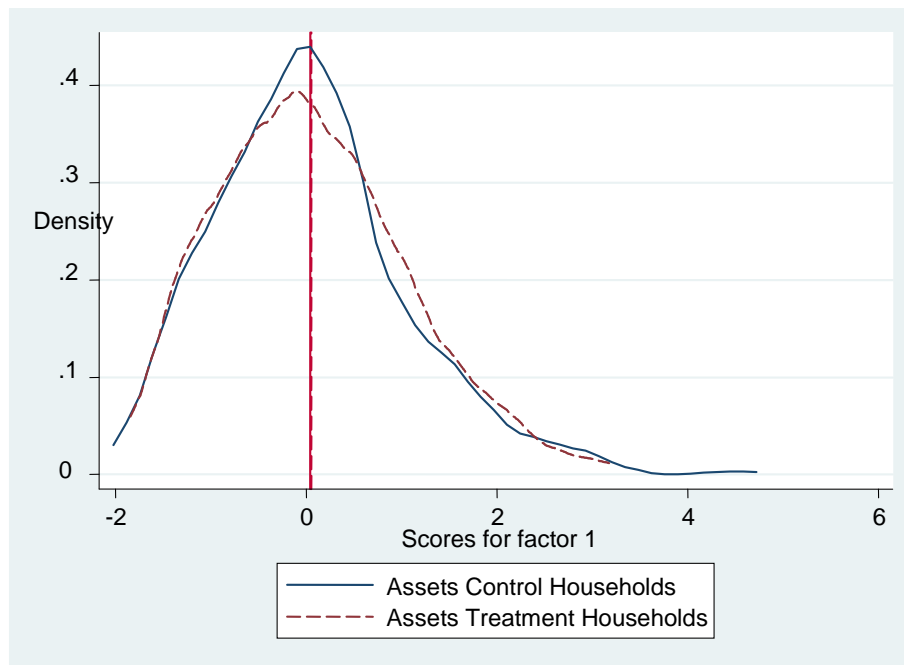
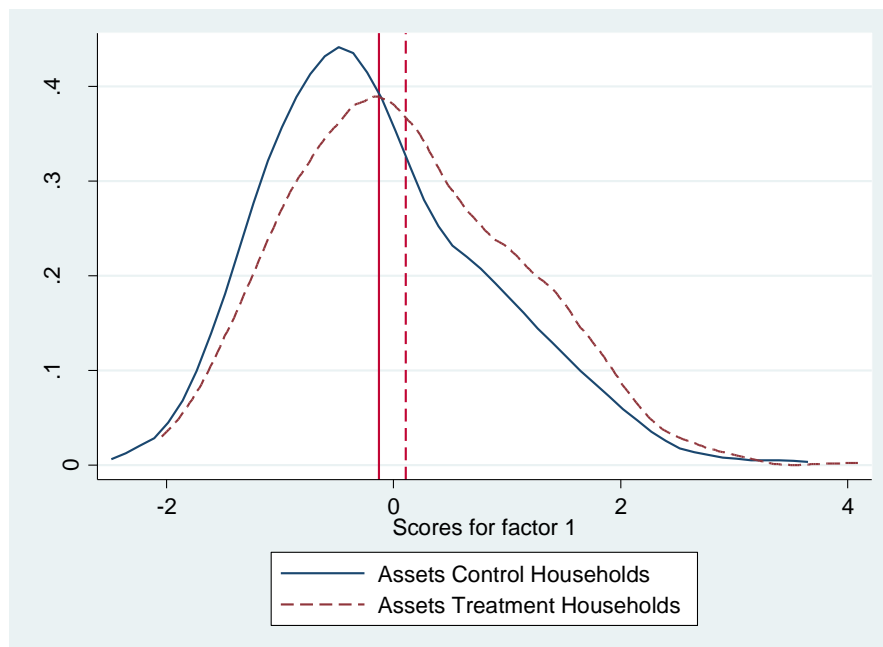


Figure 9: Distribution of the Asset Index for Treatment and Control Households after the First Project Cycle



Qualitative data support the quantitative data collected from the household surveys and indicate that participation in the VSLA intervention had a positive economic impact on participant households. For example, VSLA participants explained: “Before, we had a lot of financial problems. We did agricultural work, but we didn’t have capital so we couldn’t use all of our land. Nowadays, after establishing our [VSLA] groups, we have solidarity and live a better life. We still do agriculture. We don’t miss anything and if we do, we ask for a credit.” Participants also explained that loans have made life easier: “Our crops are now sufficient compared to the situation before the saving and loan activities. Little by little, we get out of poverty.”

FINDINGS: THE IMPACT OF THE VSLA INTERVENTION & THE HEALING FAMILIES AND COMMUNITIES DISCUSSION SESSIONS ON OUTCOMES FOR CHILDREN

To assess the impact of the VSLA intervention and the Healing Families and Communities Discussion Sessions on children, the IRC examined seven outcomes: 1) spending on children, 2) child labor, 3) caregivers' use of and belief in harsh discipline and alternatives to harsh discipline; 4) child wellbeing; 5) child mental health; 6) parent-child communication about material needs; and 7) family wellbeing.

For each of the outcomes:

- We first present the baseline data.
- We then compare data from the first cycle VSLAs and control groups to draw conclusions about the impact of the VSLA intervention on children's outcomes. Because of low statistical power in the first cycle alone (there was no control group in the second cycle), we cannot definitively state that the VSLA intervention did not have an impact on these outcomes.
- Next, we present the impact of the Healing Families and Communities discussion sessions when added to the VSLA intervention. This is done by comparing the combined data from first and second cycle VSLA only households with the combined data from those households that also participated in the Healing Families and Communities discussion sessions in the first and second project cycles.
- Finally, we present the findings of the children's quantitative survey, which was conducted prior to the intervention and after the first cycle to triangulate the findings from the household survey and identify whether children's reports are similar to those of caregivers. Where possible, we also present findings from qualitative research conducted with children and some caregivers who participated in the first cycle Healing Families and Communities Discussion groups.

SPENDING ON CHILDREN

Data on spending on children was collected through the household surveys that were conducted after both the first and second project cycles. However, due to technology failure leading to lost data we are able to report only the results of the first cycle. Measures used to assess spending on children included spending on children's education in the past year and spending on children's health and clothing during the previous month. Specific measures of spending on

children's education included spending on school fees, school uniforms, books, transportation, and other education expenses. Specific measures of spending on children's health included spending on medical consultations, medication, medical examinations, hospitalization, and other health costs. Measures of spending on clothing for children included spending on fabric or shoes for the child, spending on the manufacture of clothing and spending on the repair of clothing or shoes.

After the first project cycle, spending on education increased across the board, with the greatest increases being seen among the VSLA group: Education expenditures in the control group increased by 82% and in the VSLA group by 115%. The increase was statistically significant compared to the control group indicating that participation in the VSLA intervention had an impact on spending on education. Spending on education also increased among participants in the VSLA+ group by 90%; however, no additional effect was seen.

After the first project cycle, spending on health dropped for all groups, with larger decreases being seen among those in the treatment groups (VSLA and VSLA+): -19% versus -11% for the control group. The difference between the VSLA+ and control groups is statistically significant. However, the cause for the decrease is not evident.

After the first project cycle we saw increases in spending on clothing across all groups. However, the increase was greater for those in the VSLA and VSLA+ groups. We see the greatest increases in spending on clothing for children among participants in the VSLA+ group. Among this group there was a 42% increase (compared to a 27% increase among those who participated in only the VSLA intervention and a 16% increase among those in the control group). The impact of the Healing Families and Communities discussion sessions relative to the control is statistically significant.

During qualitative research that was conducted after the first project cycle with children whose caregivers were in the VSLA+ group, some children spoke about the strategies their parents use to meet their needs and mentioned that the VSLA groups are a support structure for their parents' income: "When my mother had the cash-out [of the VSLA group] she bought me a goat, clothes, and shoes," one child stated. According to another, "My mother is a member of the VSLA group. With the credit she gets, she sells beans and, when she has made a profit, she sometimes buys me clothes."

CHILD LABOR

To measure impact of the VSLA intervention and the Healing Families and Communities discussion sessions on the incidence of child labor, the household survey collected child labor data on children between the ages of 5 and 14. The survey explored the incidence of:

- *Economic labor* by looking at whether the reference child³¹ worked (paid or unpaid) for the household (in agriculture, trade, or the sale of goods in the street) or for someone outside the household during the past week and past year. It also looked at how much time the child spent engaged in economic labor during the past week.
- *Domestic labor* by looking at whether the child engaged in domestic work as such as cleaning, work in the kitchen, searching for wood, fetching water, or caring for other children and how much time was spent doing this work.

Before the intervention, 34% of the children between the ages of 5 to 9 and 48% of those between the ages of 10 and 14 reported engaging in economic work for someone outside the household in the last week. 8% of the children between the ages of 5 to 9 and 38% of those between the ages of 10 and 14 reported engaging in economic work for the household. The vast majority of the children also helped with domestic chores during the week preceding the survey: 87% of children between the ages of 5 to 9 and 94% of children between the ages of 10 to 14.

Table 7. Prior to intervention - Child labor			
	%	Std. Dev.	N
<i><u>Percentage of children from 5 to 9 who:</u></i>			
Worked for someone outside the household last week	34	0.47	827
Worked for someone outside the household last year	30	0.46	831
Worked for the household last week	8	0.26	871
Helped with domestic work last week	87	0.33	869
<i><u>Percentage of children who from 10 to 14 who:</u></i>			
Worked for someone outside the household last week	48	0.50	626
Worked for someone outside the household last year	54	0.50	608
Worked for the household last week	38	0.49	652
Helped with domestic work last week	94	0.23	657

Source: Results of Pre-Intervention Household Survey Data

Note: Std. Dev. is the standard deviation and N the number of observations

After the first project cycle, the children's survey showed a reduction in child labor for those children who had caregivers in the discussion groups although the difference was not statistically significant. The final evaluation reveals that, based on caregiver reports, the Healing Families and Communities discussion sessions had no impact on whether or not a child did economic labor or domestic work.

³¹ For children between the ages of 10 and 14, this section concerns the reference child.

Table 8. Impact of VSLA+ versus VSLA on Child labor

	VSLA		VSLA+		N
	%	Std. Dev.	%	P-val	
<i>Percentage of children from 5 to 9 who:</i>					
Worked for someone outside the household last week	46	0.50	47	0.83	469
Worked for someone outside the household last year	50	0.50	49	0.82	465
Worked for the household last week	15	0.36	13	0.60	486
Helped with domestic work last week	92	0.27	94	0.33	488
<i>Percentage of children from 10 to 14 who:</i>					
Worked for someone outside the household last week	53	0.50	53	0.90	378
Worked for someone outside the household last year	64	0.48	60	0.41	375
Worked for the household last week	46	0.50	42	0.39	390
Helped with domestic work last week	93	0.26	94	0.75	391

Source: Results of combined First and Second Cycle Household Survey Data

Note: N is the number of observations. OLS regressions. ***, **, * indicates significance at 1, 5 and 10% level respectively.

HARSH DISCIPLINE

To measure caregivers' use of physical and psychological punishment, the standard UNICEF Multiple Indicator Cluster Survey (MICS) scale was used. The household questionnaire drew on questions from the UNICEF MICS, the Discipline Interview³² used in a multi-country parenting study, and the Parental Acceptance-Rejection Questionnaire.³³ Additional questions were added based on formative research conducted with adults and children in Bujumbura Rural and Makamba. The household survey collected data related to children ages 10-14. Specific measures included caregiver reports of having engaged in the following in the past month: shouting, yelling or screaming at the child; shaking the child; spanking, hitting or slapping the child with the bare hand; hitting the child on the bottom or elsewhere on the body with a belt, stick or other hard object; calling the child dumb, lazy or another name like that; hitting or slapping the child on the face, head or ears; hitting or slapping the child on the hand, arm or leg;

³² Lansford et al (2005).

³³ Rohner et al (2005).

beating the child up, hitting the child over and over again. Belief that a child has to be punished for a good education was also considered as evidence shows that belief in physical discipline is strongly correlated with its use. We examined the impact of the intervention on the individual practices as well as on a total discipline scale which was an additive scale of all the individual items.

Before the intervention, 66% of caregivers reported that they or someone else in the household had shaken the child; 45% reported that they or someone else in the household had called the child a name; 21% reported that they or someone else in the household had spanked, hit or slapped the child, and 7% reported that they or someone else in the household had hit the child with an object.

Table 9. Prior to intervention - Child Discipline Practice			
	%	Std. Dev.	N
<i>Percentage of caregivers declaring they:</i>			
Shook the Child	66	0.47	617
Shouted, Yelled or Screamed at the Child	23	0.42	565
Spanked, Hit or Slapped the Child with the Bare Hand	21	0.41	357
Hit the Child on the Bottom or Elsewhere on the Body with a Belt, Stick or Other Hard Object	7	0.26	558
Called the Child Dumb, Lazy or Another Name like That	45	0.50	357
Hit or Slapped the Child on the Face, Head or Ears	5	0.23	560
Hit or Slapped the Child on the Hand, Arm or Leg	19	0.39	570
Beat the Child Up, Hit the Child Over and Over Again	4	0.20	557
Explained to the child why his/her behavior was wrong*	86	0.34	589

Source: Results of Pre-Intervention Household Survey Data

Note: N is the number of observations.

*This item was not included in the Discipline Scale below as it refers to the Positive Discipline Techniques

Table 10. Prior to intervention - Child Discipline Scale (Distress)			
	Mean	Std. Dev.	N
Score on the Discipline Scale	1.92	1.80	356

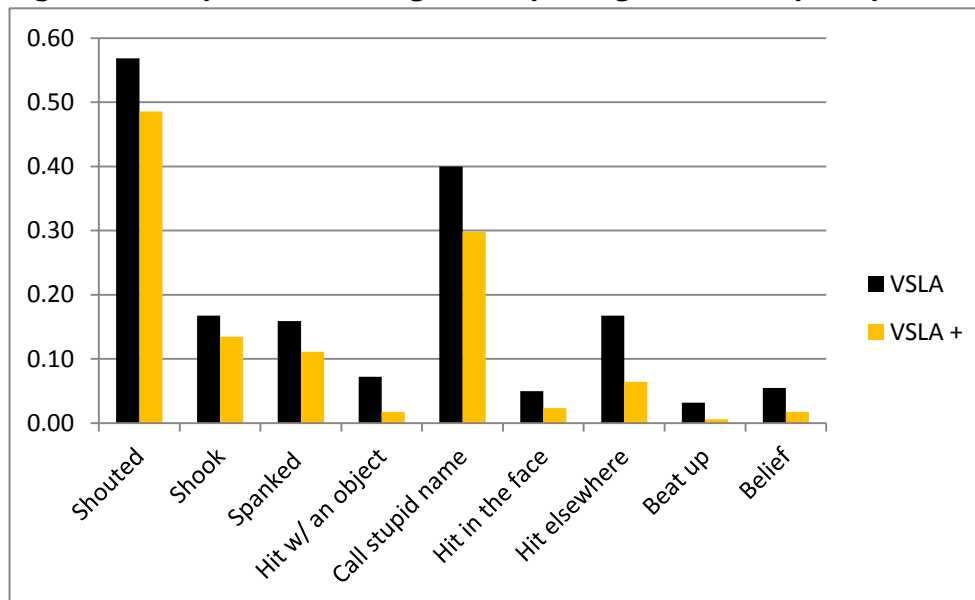
After the first project cycle, there was no reported improvement in the use of harsh discipline among caregivers who participated in only the VSLA intervention. In the combined results from the first and second project cycle, however, **we see that participation in the Healing Families**

and Communities discussion sessions did have a positive impact on harsh discipline practices. Overall, participants in the Healing Families and Communities discussion sessions reported 30% less use of harsh discipline than those who participated in the VSLA intervention alone. The greatest differences between participants in the VSLA and VSLA+ groups were seen in the following practices:

- Shaking the child: 11% (VSLA+) compared to 17% (VSLA)
- Hitting the child with a belt, stick or object: 2% (VSLA+) compared to 7% (VSLA)
- Calling the child dumb, lazy or a similar name: 30% (VSLA+) compared to 40% (VSLA)
- Hitting or slapping the child on the hand, arm or leg: 6% (VSLA+) compared to 17% (VSLA)
- Beating up the child: 1% (VSLA+) compared to 3% (VSLA)

Moreover, we also observe a statistically significant decrease in the belief that children must be physically punished for a good education, with 5% of those in the VSLA group expressing this belief versus 2% in the VSLA+ group.

Figure 10. Proportion of caregivers reporting harsh discipline practice after intervention



Source: Results of combined first and second cycle household survey data

Note: Belief stands for “belief that children must be physically punished for a good education”

Table 11. Impact of VSLA+ versus VSLA on Child Discipline Practice

	VSLA		VSLA+		N
	%	Std. Dev.	%	P-val	
<i>Percentage of caregivers declaring they:</i>					
Shouted, Yelled or Screamed at the Child (Y)	57	0.50	49	0.09*	391
Shouted, Yelled or Screamed at the Child (SE)	58	0.50	50	0.10	389
Shook the Child (Y)	17	0.37	13	0.31	392
Shook the Child (SE)	17	0.37	11	0.05*	389
Spanked, Hit or Slapped the Child with the Bare Hand (Y)	16	0.37	11	0.13	391
Spanked, Hit or Slapped the Child with the Bare Hand (SE)	14	0.35	5	0.05*	148
Hit the Child on the Bottom or Elsewhere on the Body with a Belt, Stick or Other Hard Object (Y)	7	0.26	2	0.01**	392
Hit the Child on the Bottom or Elsewhere on the Body with a Belt, Stick or Other Hard Object (SE)	6	0.24	1	0.01**	389
Called the Child Dumb, Lazy or Another Name like That (Y)	40	0.49	30	0.03**	391
Called the Child Dumb, Lazy or Another Name like That (SE)	39	0.49	33	0.50	149
Hit or Slapped the Child on the Face, Head or Ears (Y)	5	0.22	2	0.13	392
Hit or Slapped the Child on the Face, Head or Ears (SE)	4	0.20	1	0.05*	390
Hit or Slapped the Child on the Hand, Arm or Leg (Y)	17	0.37	6	0***	392
Hit or Slapped the Child on the Hand, Arm or Leg (SE)	15	0.36	8	0.04**	390
Beat the Child Up, Hit the Child Over and Over Again (Y)	3	0.18	1	0.07*	392
Beat the Child Up, Hit the Child Over and Over Again (SE)	3	0.16	1	0.11	390
Believed that a Child Has to be Physically Punished for a Good Education (Y)	5	0.23	2	0.05*	391

Table 12. Impact of VSLA+ versus VSLA on Child Discipline Practice					
	VSLA		VSLA+		N
	Mean	Std. Dev.	Mean	P-val	
Score on the Discipline Scale (Y - 9 items)	1.65	1.80	1.16	0.01**	388
Score on the Discipline Scale (SE - only 8 items)	1.47	1.70	1.00	0.05*	147

Source: Results of combined First and Second Cycle Household Survey Data

Note: N is the number of observations. OLS regressions. ***, **, * indicates significance at 1, 5 and 10% level respectively.

Y refers to respondent's behavior.

SE refers to the behavior of someone else in the household.

The results from the children's survey conducted after the first project cycle show similarly significant reductions of harsh discipline by caregivers who participated in the discussion sessions.

In the qualitative research conducted at the end of the first project cycle support, some parents described their change in discipline practices: "Nowadays we prefer discussion over physical punishments. If a child makes a mistake, we approach him or her and give advice." Some children also reported improvements in their parent's discipline practices: "We are not punished anymore like before. When we make a mistake, our parents talk to us. They give us advices and only punish the one who keeps getting into trouble."

However, in line with the quantitative data, other caregivers reported still using physical punishment. Also, some children described punishments that were not asked on the quantitative survey, such as pinching, which was also reported by caregivers: "When a child makes a mistake, I ask him to come into the house and then I pinch his skin until he asks for forgiveness." Other punishments not explored in the quantitative survey but that were raised in the qualitative research include refusing to give children food, denying children access to the house at night, and giving children extra work such as fetching water. A small number of children also reported that their fathers tie them up when they steal food from the house to eat it or sell it in the market.

POSITIVE DISCIPLINE

To measure positive discipline practices, the household survey conducted after the first and second project cycles included items that were adapted from the Multiple Indicator Cluster

Survey (UNICEF) and two other measures of parenting behaviors³⁴. Six positive discipline methods were considered:

1. Explaining to the child why his/her behavior was wrong
2. Telling the child to stop what s/he is doing and giving the child something else to do
3. Giving the child a “time-out” away from other people and fun things to do
4. Setting rules for the child’s behavior at home
5. Complimenting the child when s/he has done something good
6. Giving the child extra work (appropriate chores)

After the first cycle, we saw that compared to those in the control households, those adults who participated in only the VSLA intervention reported more use of positive discipline techniques although the differences were not statistically significant. This indicates that it is unlikely that the VSLA intervention alone had an impact on caregiver use of positive discipline techniques.

The combined first and second cycle results show that the Healing Families and Communities discussion sessions only had impact on one of the caregivers’ reported use of positive discipline techniques: “complimenting the child when s/he has done something good”. Eighty-four percent of those who attended the Healing Families and Communities discussion sessions reported using this technique compared to 71% of those who had only participated in the VSLA intervention. There was no reported impact on the rest of the positive discipline practices. In line with these results, reports from children do not indicate an impact on the use of positive discipline.

³⁴ Rohner et al (2005). Lansford et al (2005).

Table 13. Impact of VSLA+ versus VSLA on Positive Discipline Techniques

	VSLA		VSLA+		N
	%	Std. Dev.	%	P-val	
<i>Percentage of caregivers declaring they:</i>					
Explained to the child why his/her behavior was wrong (Y)	66	0.47	65	0.89	386
Explained to the child why his/her behavior was wrong (SE)	70	0.46	66	0.44	387
Told the child to stop what s/he is doing and give the child something else to do (Y)	58	0.50	59	0.75	387
Told the child to stop what s/he is doing and give the child something else to do (SE)	60	0.49	60	0.90	388
Gave the child a "time-out" away from other people and fun things to do (Y)	24	0.43	24	0.96	384
Gave the child a "time-out" away from other people and fun things to do (SE)	23	0.42	24	0.85	385
Set the rules for the child's behavior in the home (Y)	66	0.47	73	0.15	389
Set the rules for the child's behavior in the home (SE)	64	0.48	70	0.21	392
Complimented the child when s/he has done something good (Y)	71	0.45	84	0***	385
Complimented the child when s/he has done something good (SE)	72	0.45	83	0***	388
Gave the child extra work (Y)	13	0.34	11	0.57	389
Gave the child extra work (SE)	10	0.31	11	0.98	391

Source: Results of combined First and Second Cycle Household Survey Data

Note: N is the number of observations.

OLS regressions. ***, **, * indicates significance at 1, 5 and 10% level respectively.

Y refers to respondent's behavior.

SE refers to the behavior of someone else in the household.

PARENT-CHILD COMMUNICATION

Measures of parent-child communication included the number of times the caregiver spoke to the reference child (between the ages of 10-14) about his/her material needs in the past month and the frequency with which the caregiver was able to respond to a material need expressed by the child. Survey questions related to parent-child communication focused on material needs because the formative research revealed that the bulk of wishes expressed by children are material (having clothes, having school uniforms, having school material or having enough to eat). Questions related to parent-child communication were included in the household surveys

that were conducted at the end of the first and second project cycles and were also included in the children's survey that was conducted at the end of the first project cycle.

Final results of the household surveys show that the Healing Families and Communities discussion sessions did not have a significant impact on parent-child communication.

Based on data from the first and second project cycles, 90% of the caregivers from the VSLA and 91% from the VSLA+ group declared that they spoke with their child at least once about his/her material needs in the past month. 64% in both groups declared that they were able to respond to these needs most of the time or always.

Table 14. Impact of VSLA+ versus VSLA on Parent-Child Communication					
	VSLA		VSLA+		N
	%	Std. Dev.	%	P-val	
<i>Percentage of parents who:</i>					
Communicated with children about their material needs	90	0.30	91	0.81	385
Were able to respond to children's material needs	64	0.48	64	0.93	374

Source: Results of combined First and Second Cycle Household Survey Data

Note: N is the number of observations. OLS regressions. ***, **, * indicates significance at 1, 5 and 10% level respectively.

According to the results of the children's survey, however, the Healing Families and Communities discussion sessions did have a significant impact on parent-child communication. Findings from qualitative research provide some examples of positive changes: For example, one caregiver stated: "Since we have followed the modules, it is much easier for us to have dialogue with our children. For example, I ask how their school day was." Some children also reported changes: "Nowadays they pay more attention to us."

CHILD WELLBEING

To measure child wellbeing, at the end of the first and the second cycle, caregivers were asked the frequency during the past month that the reference child between the age of 10 and 14: ate when hungry; was dressed well; studied well; had good health; had good behavior; was happy; and had someone to provide support when it was needed.

These seven items were selected based on formative research that included qualitative interviews with caregivers and children. These measures were made into a scale measuring aggregate child wellbeing. The scale ranges from 0 to 14, with 0 indicating low wellbeing and 14 indicating maximum wellbeing.

Before the intervention, the average response from caregivers was 6 on the 14-point scale, indicating that children had most of the indicators of wellbeing ‘some of the time’.

After the first cycle, we found that participants in the VSLA intervention reported slightly higher wellbeing for their child than those in the control households; however the difference was not statistically significant. This indicates that it is unlikely that the VSLA intervention alone had an impact on child wellbeing.

In the combined results from the first and second cycle, caregivers in both intervention groups reported higher levels of wellbeing with the average score at just under 8 on the scale of 14. However, there was little difference between those who attended the Healing Families and Communities discussion sessions (7.92) and those who participated only in the VSLA intervention (7.82) and the difference was not significant. This indicates that the Healing Families and Communities discussion sessions had no impact on caregivers’ rating of children’s wellbeing measures.

Table 15. Impact of VSLA+ versus VSLA on Child Well-Being					
	VSLA		VSLA+		N
	Mean	Std. Dev.	Mean	P-val	
Aggregate child well-being	7.82	3.56	7.92	0.72	373

Source: Results of combined First and Second Cycle Household Survey Data

Note: N is the number of observations. OLS regressions. ***, **, * indicates significance at 1, 5 and 10% level respectively.

The final results of the household survey differ from the results of the children’s survey that was conducted after the first program cycle. According to the children’s survey, the Healing Families and Communities discussion sessions had significant impact on child wellbeing whereas the small improvement in wellbeing from participation in only the VSLA intervention was not significant.

CHILD MENTAL HEALTH

In the combined results from the first and second cycle, child mental health was measured based on caregiver reports of how frequently in the past month the reference child between the ages of 10 and 14 experienced symptoms of distress or showed signs of aggression. These items were derived from qualitative interviews conducted with caregivers during the formative research.

Distress

Distress scores were calculated on a scale ranging from 0 (no distress symptoms at all within the past month) to 21 (the maximum level of distress within the past month). Seven distress symptoms were included in the scale (feeling worried, feeling dizzy/ill because of bad thoughts and worries, feeling sad, being withdrawn, not playing with others, crying, and isolating oneself from others).

Before the intervention, the average response from caregivers was 2.64, meaning that on average children experienced one of the symptoms a lot of the time or three of the symptoms sometimes. This is a low score on the overall scale.

After the first project cycle, we found no reported impact of the VSLA intervention on children's distress compared to the control group—caregivers in both groups reported similar levels of children's distress.

The children's report from the first cycle is more positive as children reported some significant decline in distress.

In the combined results from the first and second cycle, we found that the Healing Families and Communities discussion sessions had no impact on children's distress as reported by caregivers. Among VSLA and VSLA + participants, we see less than a one point decrease in average distress scores. The average distress score for children of participants who participated only in the VSLA intervention decreased to 2.21 and the average distress score for children of those who also participated in the discussion sessions decreased to 2.08. The differences are not statistically significant and are small on the overall scale.

Table 16. Impact of VSLA+ versus VSLA on Child Mental Health (Distress)					
	VSLA		VSLA+		N
	Mean	Std. Dev.	Mean	P-val	
Distress Scale	2.21	2.76	2.08	0.64	319

Source: Results of combined First and Second Cycle Household Survey Data

Note: N is the number of observations. OLS regressions. ***, **, * indicates significance at 1, 5 and 10% level respectively.

Aggression

Three aggressive behaviors (insulting others, not respecting caregivers, and being aggressive) were included in a scale created for the study. Aggression scores were calculated on a scale ranging from 0 (no aggressive behaviors within the past month) to 9 (all 3 aggressive behaviors demonstrated frequently in the past month).

Before the intervention, the average response from caregivers was 1.62 on the 9-point scale, meaning that on average children experienced one symptom somewhere between ‘sometimes’ and ‘much of the time’.

Table 17. Prior to intervention - Child Mental Health (Aggression)			
	Mean	Std. Dev.	N
Aggression Scale	1.62	1.64	453

Source: Results of Pre-Intervention Household Survey Data

Note: N is the number of observations.

After the first project cycle, based on caregiver reports, we found no impact of VSLA on children’s overall aggression scores compared to control.

According to data from the first and second cycle household surveys, the Healing Families and Communities discussion sessions did not have an impact on reported aggressive behaviors. After the intervention, the average score for those in the discussion group was 1.23 and the score for those in only the VSLA intervention was 1.52. The differences are small on the overall scale and are not statistically significant.

Table 18. Impact of VSLA+ versus VSLA on Child Mental Health (Aggression)					
	VSLA		VSLA+		N
	Mean	Std. Dev.	Mean	P-val	
Aggression Scale	1.52	1.76	1.23	0.12	279

Source: Results of combined First and Second Cycle Household Survey Data

Note: N is the number of observations. OLS regressions. ***, **, * indicates significance at 1, 5 and 10% level respectively.

The children’s report showed a drop in aggression for those whose caregivers participated in the Healing Families and Communities discussion sessions. However, the change was relatively small on the overall scale and was not significant.

FAMILY WELLBEING

Family wellbeing was measured by two scales (a family functioning scale and a family problems scale), both having a range of 0-6. The scales were constructed from items identified by both children and caregivers during formative research. The family functioning scale consisted of the following items: frequency within the past month that there was good understanding among family members; that family members shared household work; and that the family got along well

with neighbors. A zero score means low wellbeing and a 6 means maximum family wellbeing on this scale. The family problems scale included the following items: incidences of violence among family members during the past month; where a family member sold property without consulting other family members; when family members were intoxicated. A zero score means that none of the family problems were indicated; while a score of 6 means that the respondent indicated that all three of the problems were present “all of the time”.

Before the intervention, caregivers reported an average family functioning score of 4.47. This indicates that all three indicators of good family functioning were present some or all of the time. The average family problem scale was quite low at 0.68 indicating the family had one of the problems less than some of the time.

After the first project cycle, we found no reported impact of the VSLA intervention on family functioning compared to the control group. However, the participants in the VSLA intervention reported significantly lower family problems than the control group.

According to the combined results of the household surveys after the first and second project cycles, the Healing Families and Communities discussion sessions had no impact on family functioning or family problems compared to those in the VSLA intervention only. However, after the first cycle, the children’s report showed that the Healing Families and Communities discussion sessions significantly lowered family problems but had no impact on measures of family wellbeing.

Table 19. Impact of VSLA+ versus VSLA on Family Well-Being					
	VSLA		VSLA+		N
	Mean	Std. Dev.	Mean	P-val	
Family functioning Scale	4.46	1.39	4.52	0.73	941
Family problems Scale	0.54	1.09	0.48	0.48	933

Source: Results of combined First and Second Cycle Household Survey Data

Note: N is the number of observations. OLS regressions. ***, **, * indicates significance at 1, 5 and 10% level respectively.

DISCUSSION

Impact of the VSLA intervention on household economic outcomes:

Overall, we saw that participation in New Generation's VSLA intervention had a strong impact on household economic outcomes. The results of the first project cycle survey show that participation in the VSLA intervention had a significant impact on both household assets—which are indicative of longer-run income—and consumption, a measure of current income. These findings are in line with evidence from other microfinance interventions which indicate that micro-credit and micro-savings combined have a positive impact on levels of savings, expenditures, and assets. However, it is important to view these results in light of emerging findings from RCTs conducted by Innovations for Poverty Action. While the results of all the RCTs are not yet published, the results of the study in Mali,³⁵ show that VSLAs alone had an impact on savings, loans, and food security, but had no impact on income. It is possible that New Generation's impact on household assets and consumption could be due to the entrepreneurship and financial literacy education that was included in the VSLA intervention. A rigorous evaluation of the impact of VSLAs compared to VSLAs plus entrepreneurship and financial literacy education could provide information around the added value of entrepreneurship and business skills education. A cost effectiveness analysis would be an important component of such a study as VSLAs alone are considered a low cost intervention, while entrepreneurship and business skills education can be costly and time-intensive.

Impact of the VSLA intervention on parenting practice, family wellbeing, and child outcomes:

While the VSLA intervention had an impact on household economic outcomes, household survey data from the end of the first project cycle indicates that participation in the VSLA intervention on its own did not have an impact on harsh discipline, positive discipline, or parent-child communication, nor did it have an impact on children's wellbeing or mental health. Moreover, participation in the VSLA intervention does not appear to have improved overall family functioning, though it did significantly lower family problems compared to the control.

These findings are based on the first project cycle which had limitations in terms of statistical power; therefore we are less confident in the statistical significance for these outcomes. Nonetheless, the pattern of small differences and insignificant results seen among VSLA participants compared to the control group provides a consistent picture that the VSLA intervention did not have a meaningful impact on these outcomes.

Impact of the Healing Families and Communities discussion sessions on parenting practice, family wellbeing and child outcomes:

³⁵ <http://www.oxfamamerica.org/issues/community-finance/files/final-impact-evaluation-saving-for-change>

According to the results of household surveys conducted with caregivers, the Healing Families and Communities discussion sessions had an impact on some caregiver practices but not on others. Importantly, the discussion sessions decreased harsh physical and verbal discipline by caregivers in the home. However, the discussion sessions improved only one of the six positive discipline techniques and had no impact on parent-child communication. According to the household survey results, the Healing Families and Communities discussion sessions also had no impact on child labor, family functioning, family problems, overall child-wellbeing, or child mental health.

It is important to note, however, that the children's surveys conducted after the first project cycle paint a different picture than that seen in the analysis of the household surveys. Children reported an improvement in family problems, children's wellbeing, children's distress and parent-child communication. Had the children's survey been conducted not only after the first project cycle, but also after the end of the second project cycle, it is possible that we would have continued to see children reporting improvements that are not reflected in caregiver responses.

Overall, the findings related to changes in harsh discipline are positive and confirm evidence from other family-based programs that a relatively brief skills-focused program can improve caregivers' behaviors towards their children³⁶. This evaluation provides some of the first evidence that this can be done in low resource and conflict affected settings. However, final results of the household survey show that according to caregiver reports, the Healing Families and Communities discussion sessions did not have a direct impact on children's outcomes. The pattern of observing stronger impacts from parenting programs on caregiver practices over child outcomes is consistent with findings from other studies³⁷ as parenting practices are the direct target of the program while child outcomes are more distal.

There are several potential reasons that we did not see stronger results across parenting behaviors and children's outcomes. First, the intervention was the IRC's first family-based intervention and was developed by program staff specifically for Burundi. While this enabled the IRC to deliver a truly contextualized intervention, the program model was not based on specific evidence-based models. Second, the Healing Families and Communities discussion sessions attempted to address many risks for children and consequently may have watered down the 'dose' of specific components by trying to address too many topics in a ten-session program. Moreover, the discussion sessions did not provide opportunities for caregivers to practice skills directly with children during sessions. The sessions were attached to the savings group meetings and attempted to reach a large number of caregivers in a group setting, which made it challenging to include direct caregiver-child interaction. In a review across parenting programs, opportunities for practicing new skills were shown to be related to stronger impacts and therefore the lack of practice during sessions may weaken results. Finally, prior to the intervention, the household survey showed relatively low levels of reported family problems and

³⁶ Kaminsky et al (2008).

³⁷ Ibid

high levels of family functioning, child wellbeing and mental health. This left relatively little room for change. The children's survey showed higher levels of distress and lower levels of wellbeing, which is consistent with comparisons of child and parent reports in other studies.

CONCLUSIONS & RECOMMENDATIONS

Does a VSLA intervention improve economic outcomes of poor households?

Overall, as one of the first RCTs on VSLAs, the results from the New Generation project provide important evidence that Village Savings and Loans Associations combined with entrepreneurship and financial literacy education can improve the economic outcomes of poor households. However, to determine the benefit of providing a comprehensive VSLA intervention such as that provided through the New Generation project, the findings of this study will need to be looked at together with the findings of other RCTs that have recently been conducted or that are currently underway.

Is money alone to enough to improve child wellbeing in poor families?

Limitations of the study (namely the limited statistical power) prevent us from being able to confidently report on the impact of the VSLA intervention alone on child protection and wellbeing outcomes. However, results suggest that the VSLA intervention alone did not reduce harsh discipline practices, improve positive discipline, or impact child wellbeing or mental health. Further research on the impact of VSLAs and other economic interventions on child protection and wellbeing outcomes is necessary.

Do the Healing Families and Communities discussion sessions offer additional benefits for child wellbeing beyond those that can be explained by increased economic outcomes?

Overall, final results of the household survey provide evidence that the Healing Families and Communities discussion sessions significantly reduced physical and verbal discipline by caregivers in the home. Results on children's wellbeing are more mixed. While children's surveys from the end of the first project cycle indicated improved impact on overall child wellbeing, results from the household survey show that according to caregivers, discussion sessions did not have a direct impact on children's outcomes.

Recommendations

The results from this evaluation are an important contribution to the growing evidence related to family-based interventions in low-income and conflict-affected settings. However, the findings reveal that there is still much learning to be done to determine which interventions are most needed and result in the greatest improvements to child protection and wellbeing outcomes. Moving forward, it will be important to bring together a range of stakeholders to look across the family-based interventions being implemented and rigorously evaluated by the IRC around the world and explore what works and what does not.

In addition to drawing on lessons learned, advancing learning around family-based interventions and improving project quality should involve:

1. Clearly defining the core outcomes we seek for children and identifying related measures that will enable us to compare results across programs and contexts.
2. Identifying evidence-based, universal, basic caregiver competencies that contribute to the child protection and wellbeing outcomes we want to achieve.
3. Designing a clear, evidence-based theory of change that can guide program implementation and be tested and adapted based on new evidence.
4. Compiling lessons learned from family-based interventions and from behavior change interventions implemented by other sectors to identify the processes, program components, and considerations that mitigate risks to children and contribute to successful program outcomes.

Moreover, it will be important to invest in further research. Recommendations include:

1. Investing in a longitudinal study to assess the sustainability of change.
2. Investing in further research into the impact of VSLAs and other economic interventions on child wellbeing.
3. Investing in further research into the impact of VSLAs only compared to the impact of comprehensive VSLA interventions that include entrepreneurship and financial literacy education.
4. Exploring the correlation between harsh discipline, family problems, and child wellbeing in low-resource, conflict and disaster affected settings.
5. Exploring reasons for attrition from VSLAs and identifying strategies for addressing participation barriers.
6. Investing in the implementation and evaluation of innovative approaches to improving the economic conditions for the poorest of the poor.

Bibliography

Akwara, P. et al. (2010). "Who is the vulnerable child? Using survey data to identify children at risk in the era of HIV and AIDS" *AIDS Care*, Vol. 22, No. 9, September 2010, pp. 1066-1085.

Annan, J. & Blattman, C. (2008). The Reintegration of Child and Youth Combatants in Northern Uganda: Myth and Reality. In Muggah, R. (Ed.) *Securing Protection: Dealing with Fighters in the Aftermath of War*. New York, NY Routledge Press.

Betancourt T. (2002). The IRC's emergency education and recreation for Chechen displaced youth in Ingushetia. *Forced Migration Review* 2002; 15:28-30.

Campbell P, Handa S, Moroni M, Odongo S, Palermo T. (2010). "Assessing the orphan effect in determining development outcomes for children in 11 Eastern and Southern African countries." *Vulnerable Children and Youth Studies*, Vol. 5(1): 12-32, 2010.

Consultative Group to Assist the Poor/The World Bank. (2011). Latest Findings from Randomized Evaluations of Microfinance. <http://www.povertyactionlab.org/publication/latest-findings-randomized-evaluations-microfinance>

Drexler, A., G. Fischer, and A. Schoar. (2010). "Keeping It Simple: Financial Literacy and Rules of Thumb." CEPR Working Paper. London, UK: Centre for Economic Policy Research. September

Engle, P., Grantham-McGregor, S., Black, M., Walker, S., and Wachs, T. (2009). How to Avoid the Loss of Potential in Over 200 Million Young Children in the Developing World.

Grantham-McGregor, S., Cheung, Y.B., Cueto, S., Glewwe, P., Richter, L., & Strupp, B. et al. (2007). Developmental potential in the first 5 years for children in developing countries. *Lancet*, 369 9555, 60–70.

Kaminski, J. W., Valle, L. A., Filene, J. H., & Boyle, C. L. A. (2008). Meta-analytic Review of Components Associated with Parent Training Program Effectiveness. *Journal of Abnormal Child Psychology*, 36, 4, 567-589.

Karlan, Dean, and Martin Valdivia. (2011). "Teaching Entrepreneurship: Impact of Business Training on Microfinance Clients and Institutions." *The Review of Economics and Statistics*, 93(2): 510–27.

Knerr W, Gardner F and Cluver L., *Prevention Science*. (2013). Improving Positive Parenting Skills and Reducing Harsh and Abusive Parenting in Low- and Middle-Income Countries: A Systematic Review.

Lansford, J. E., Chang, L., Dodge, K. A., Malone, P. S., Oburu, P., Palmérus, K., Bacchini, D., Pastorelli, C., Bombi, A. S., Zelli, A., Tapanya, S., Chaudhary, N., Deater-Deckard, K., Manke,

B., & Quinn, N. (2005). Cultural normativeness as a moderator of the link between physical discipline and children's adjustment: A comparison of China, India, Italy, Kenya, Philippines, and Thailand. *Child Development*, 76, 1234-1246.

Ravallion, M., Chen, S. and Sangraula, P. (2008) "Dollar a Day Revisited." World Bank Policy Research Working Paper 4620. Washington D.C.: The World Bank.

Rohner, R. P., & Khaleque, A. (Eds.). (2005). *Handbook for the study of parental acceptance and rejection* (4th ed.). Storrs, CT: Rohner Research Publications.

Sim, A ; J. Costigan; L. Boone and M. Armstrong. (2011). The International Rescue Committee. Evidence based and evidence generating family-strengthening interventions in humanitarian contexts. Bernard van Leer Foundation. *Early Childhood Matters*: June 2011.

Stewart R, van Rooyen C, Dickson K, Majoro M, de Wet T (2010). What's the impact of microfinance on poor people? A systematic review of evidence from sub-saharan Africa.