

Evaluation Report for the TESFA (Towards Economic and Sexual Reproductive Health Outcomes for Adolescent Girls) Project *



Jeffrey Edmeades
Robin Hayes
International Center for Research on Women

* This report was completed as a deliverable for the TESFA project, funded by the Nike Foundation and Packard Foundation. This report includes information gathered from multiple sources and has benefited immensely from the input of a number of people involved in the project, most importantly our implementation partners at CARE-Ethiopia and our evaluation partners at the Birhan Research and Development Consultancy (BRDC). Special thanks go to Ann Warner and Gwennan Hollingworth, who provided important feedback and editorial assistance in the final stages of the preparation of this report. Finally, an immense debt of gratitude is also due to the girls who participated in the program and who willingly gave their time to participate in the data collection.

1. Executive Summary

This evaluation seeks to address two key questions:

1. What impact did participation in the TESFA project have on the lives of the adolescent girl participants in terms of their economic opportunities, sexual and reproductive health and general wellbeing?
2. Does the combining economic empowerment training with sexual and reproductive health training result in greater impact than when each is delivered separately?

The overall findings indicate very significant improvements in the lives of participants in economic, health and social terms. While not all improvements in the economic domain are directly attributable to the TESFA program, the results suggest that in a number of areas the improvement seen by project participants are significantly larger than those in the control group. In particular, improvements in financial skills, productive use of savings, say in household economic decisions and confidence in their economic self-sustainability were particularly large in the program arms.

In contrast, the program arms receiving specific training on sexual and reproductive health (the SRH and Combined arms) saw large gains across a wide range of outcomes that exceeded those seen in the economic and control arms. Girls in the arms including SRH training saw larger gains in knowledge of sexually transmitted diseases, knowledge of antenatal care, increased understanding of the financial benefits of lower fertility, use of modern contraception, use of health services for family planning, and greater improvements in couple communication around SRH matters.

The changes in were accompanied by large gains in couple communication, decreased levels of gender-based violence and improved mental health. Levels of spousal communication increased in all arms, but the increase was greatest in the intervention arms, and particularly in the VSLA and SRH arms. Gender based violence fell in all arms and, while the quantitative evidence of program effect is mixed, the qualitative data in particular point to improvements in the program arms for all types of violence except for psychological violence. These improvements are matched by clear improvements in mental health, particularly in the arms that received training on SRH, along with significant improvements in the optimism girls felt in terms of the future. Changes were also seen in levels of social support, gender attitudes, and satisfaction in their marriage.

While the results provide strong evidence for the overall effect of the project on the lives of girls, there is little evidence suggesting a synergistic relationship where combining economic and SRH programming results in even better outcomes than when offered separately. While the improvement in the economic outcomes are similar across

the project arms, there is no area where the combined arm consistently outperforms the VSLA arm. This is also true when examining SRH outcomes, with the changes consistently higher for the girls in the SRH arm. However, the combined arm generally experienced changes on both the economic and SRH dimensions that were greater than the arms receiving solely one type of intervention and the control group. This suggests that while there is no evidence of a synergistic effect, girls receiving the combined package may have experienced the greatest overall gains from program participation, gaining significantly in terms of both economic and health outcomes.

2. The TESFA Project – Background

While a significant amount of research has explored the causes and consequences of child marriage, both in Ethiopia and elsewhere, little research, and few programs, have focused on child brides or attempted to understand and mitigate the effects of early marriage. The *Toward Economic and Sexual/Reproductive Health Outcomes for Adolescent Girls* (TESFA) project, launched in 2010 by CARE Ethiopia and the International Center for Research on Women (ICRW), aimed to address this gap in research and programming by reaching 5,000 ever-married adolescent girls (10- 19 years old) with sexual and reproductive health (SRH) and economic empowerment (EE) information and services. In addition to using innovative methodologies to help understand not only *if* the project worked, but *how* it worked and why, the program provided opportunities for marginalized young women to participate in the social, economic and political life of their families and communities. The findings from this evaluation will provide insight to both programmers and researchers seeking to understand the situation of married adolescents in Amhara and how to most impact their lives through programmatic interventions.

TESFA Project Implementation

The TESFA project was implemented in two *woredas*¹-Farta and Lay Gayint- in the South Gondar region of the Amhara zone. Located in the highlands of Ethiopia both are typical of rural areas throughout the region- especially in terms of the socio-cultural environment governing the behavior of adolescent girls. In both *woredas* girls are at risk of early and forced marriage, female genital cutting (FGC) and social norms favoring investment in male over female children which impacts girl's educational opportunities, decision-making power within their households, and increases their vulnerability to sexually transmitted diseases (STDs) and other health concerns. Though there are signs that things are improving- new infrastructure projects have grown the local economies, mobile phone networks have improved, and as a result of the Health Extension Workers (HEW) programs, access to healthcare is improving- women aged 20-49's median age of marriage continues to be 15.1 years (as compared to 17.1 in Ethiopia).²

The TESFA project built on CARE's well-established Village Savings and Loan Association (VSLA) model, where girls were organized into groups and program content was delivered primarily via peer-educators. While this approach has been widely used, to our knowledge it had not been used exclusively with adolescent girls or as a mechanism for delivering a health-related curriculum. In addition, the project sought to engage the

¹ *Woredas* are the largest administrative subdivision below the larger zones. These are roughly equivalent to states in the United States administrative system, and are further sub-divided into *kebeles*, which are roughly equivalent to counties in the United States.

² Wakabi, Wairagala (2008). "Extension workers drive Ethiopia's primary health care". *The Lancet*. Volume 372, Issue 9642, Page 880, 13 September 2008.

Bilal, Nejmudin Kedir, Christopher H. Herbst, Feng Zhao, Agnes Soucat and Christophe Lemiére (2011). "Health Extension Workers in Ethiopia: Improved Access and Coverage for the Rural Poor", pp. 433 – 443 in Chuhan-Pole, Punam, Manka Angwafo (eds). *Yes Africa can: success stories from a dynamic continent*. The World Bank, Washington DC.

community to a greater degree than is typical. In particular, community members were recruited as a part of Social Action and Analyses (SAA) groups, which received training in areas related to the main project goals through a peer-education system similar to that used with the girls groups, acted as liaisons between the project and the community and were tasked with providing support to the girls groups.

TESFA Evaluation

This project tested the intervention model using robust research methods. The research component of the project aimed to provide directly actionable and relevant evidence on the effectiveness of providing EE and SRH programming together as a single package, versus providing these interventions in isolation. To address this question, program participants were separated into four main program arms:

1. those receiving EE training only (VSLA),
2. those receiving SRH training only (SRH),
3. those receiving a combined EE/SRH program (Combined), and
4. those receiving a delayed version of the combined curriculum, who served as a comparison group (control)

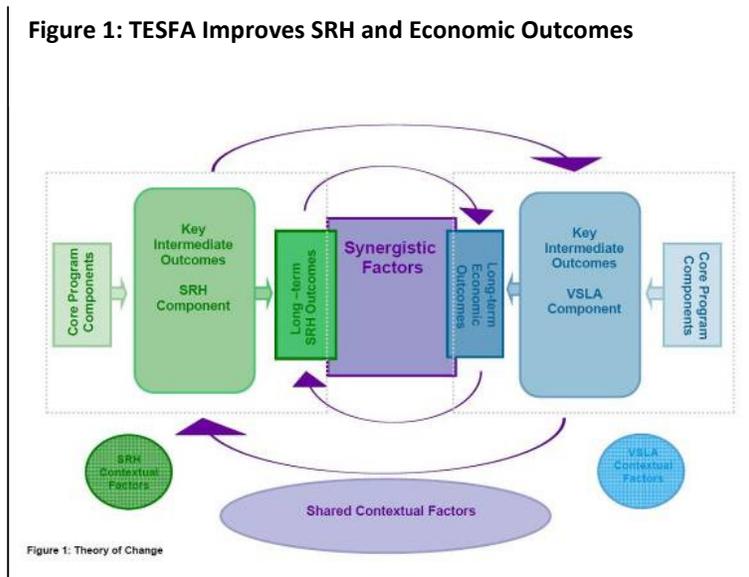
This design allowed for comparisons of the relative effectiveness of each arm in improving the EE and SRH conditions of the girls and the effect of each of these compared to a de facto 'do nothing' scenario where the girls did not receive any programming.

Figure 1 illustrates the basic components of the TESFA theory of change. The core

hypothesis being tested, whether the combined EE/SRH approach resulted in improved outcomes for girls, is based on the theory that, for this population, a synergistic relationship exists between EE and SRH and that an improvement in one (EE or SRH) provides the catalyst for improvements in the other. For a more detailed description of the theory of change, and the hypothesized synergies between SRH and EE programs, please refer to the baseline report, submitted to the Nike Foundation on January 10th, 2013.

With this hypothesis and theory of change in mind, the impact evaluation looked to address the following questions:

- How did the program impact the economic activities of participant girls?



- How did the program impact the health of participant girls?
- Does the combined program achieve its intended goal(s), both in terms of economic and SRH outcomes?
 - Are EE outcomes greater or equal to those in the combined arm than in the EE-only arm?
 - Are SRH outcomes greater or equal to those in the combined arm than in the SRH-only arm?
- Are there any unintended effects of the program, either positive or negative?

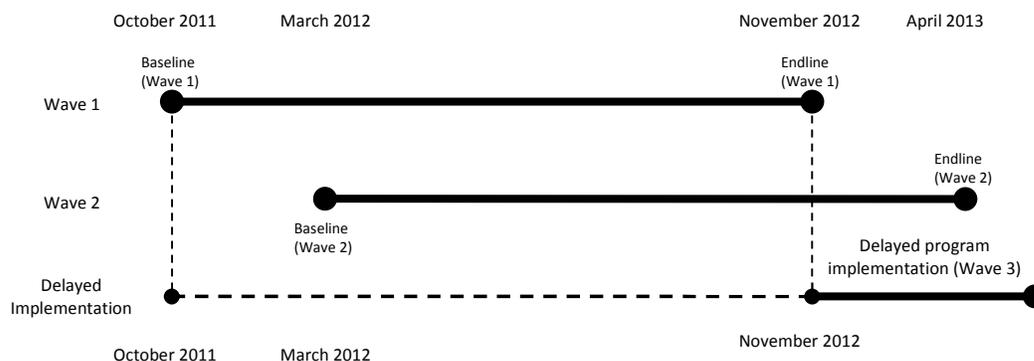
Annex 1 provides a list of the specific indicators/measures that were used to assess progress on these questions.

An assessment of the overall programmatic effectiveness was also conducted. For further information about participant selection, please read the baseline report.

Timeline of program implementation and evaluation

The project was divided into two distinct phases- the first phase (December 2010-May 2011), included 1,147 girls and was a pilot of the intended project. The purpose of this phase was to test the programmatic and evaluation approaches. The second, or main implementation phase, was divided into two waves, with Wave 2 starting five months after Wave 1. Wave 1 included all girls in the delayed implementation arm and a subset of girls in the implementation arms (a total of roughly 1,600 girls), while Wave 2 included a targeted 1,400 participants, all from the three main implementation arms. Please refer to figure 2 for a visual representation of the timeline.

Figure 2: Timeline for implementation of program waves



Partners

Funded by the Nike and Packard Foundations, the implementation and evaluation of the TESFA project was a collaborative effort between the implementing partners CARE-Ethiopia and ORDA, BRDC the full time evaluation field coordinator, ICRW the

monitoring and evaluation partner, and the Family Guidance Association of Ethiopia (FGAE) who assisted in the development of the sexual and reproductive health curriculum, training of peer educators, and questions related to the initial stages of the program.

3. Evaluation Methodology and Assessment of Attrition Selectivity

This evaluation of the TESFA project draws on four main sources of data:

1. *Quantitative Surveys*: Baseline (October 2011 and March 2012) and endline (November 2012 and April 2013) surveys were fielded for both waves of the project.
2. *Qualitative interviews collected at endline*: In April 2013, the research team conducted focus group discussions, in depth interviews and participatory learning activities with program participants, community members, SSA members, program staff and other partners.
3. *PhotoVoice*: In April 2013, ICRW utilized this data collection technique- which has program participants capture their lives, environments and experiences through photography or video- with 10 TESFA participants to allow them the opportunity to actively participate in the research and share their perspectives of the impact of the program in their own voice.
4. *Monitoring data*: Comprehensive monitoring data were collected throughout the project's life, covering project activities at the girl group level, SAA group level, and project staff level. Detailed information was collected on a variety of activity indicators, providing 'real-time' information relevant to both the program implementation and evaluation.

The evaluation of the project is conducted in stages. In the first stage, we examine the potential effect of sample attrition on the comparability of results across the different arms. This analyses focuses on whether attrition (the 'loss' of respondents between the baseline and endline due to program dropout, unavailability of respondents at endline etc.) has reduced the analyses samples for each of the intervention arms in ways that may bias the eventual comparisons made for key outcomes. In the second phase of the evaluation, we assess the level of change in each of the arms and compare these against each other. This is done for each of the core outcomes individually – economic and sexual and reproductive health outcomes – and also for broader social effects the program may have had.

The evaluation approach followed in this report relies predominantly on bivariate tests of change. Two levels of statistical tests are conducted throughout this evaluation. The first is an assessment of the statistical significance of the change in each arm between baseline and endline. The second is a formal test of whether the changes within each arm are different from each other (either larger or smaller) in statistically significant

way³. For example, if we find change of ten percentage points in the prevalence of a variable in the SRH arm and 15 percentage points in the VSLA, we first test to see if each of these is 'real'. We then test to see if the difference between the two 'change' levels (in this example, the difference is 15-10=5 percentage points) is statistically significant. If all changes are statistically significant, we can say with some certainty that 1) an increase happened in both arms and 2) that the increase in the VSLA arm was really larger than that in the SRH arm.

This approach allows for the broader assessment of change across a wide range of variables, but further analyses will be required to fully disentangle the influence of geographic location (analyses at baseline indicated that the two study sites differed in several important ways), how the project worked for different subgroups (such as divorced girls), and the relative influence of other household and individual characteristics on these outcomes. Nevertheless, the analyses presented here provide a firm evidence base for the assessment of the effect of the project across a wide range of outcomes and how this differed by the type of intervention offered.

Assessment of the selectivity of attrition

While the 'cohort' approach used in the study, where an entire group of girls is followed over time and change is assessed through linked baseline and endline measures, is a powerful analytic approach, its validity is dependent in part on having comparable groups of girls at baseline and endline. Table 3.1 shows the proportions retained and lost to followup for each of the arms.

Table 3.1: Proportions of respondents for each arm retained and lost to followup between baseline and endline

<i>Arm</i>	<i>Retained</i>	<i>Lost to followup</i>	<i>Total</i>	<i>Percentage Retained</i>
VSLA	807	268	1,075	75.1
SRH	1,005	105	1,110	90.5
Combined	887	221	1,108	80.1
Control	380	98	478	79.5

Sample attrition/loss to followup is highest in the VSLA, Combined and Control arms, with roughly 20 percent of those interviewed at baseline not interviewed at endline. While some of this may be reflective of differences in the ways that the program arms influence dropout (e.g. the financial requirements for participation in the VSLA and Combined arms may be considered risky or too onerous for girls) but other factors such as socio-economic differences between Farta and Lay Gayint (the SRH arm was implemented by CARE in Farta only and the VSLA and Combined arms by ORDA in Lay

³ This represents the most basic 'difference-in-difference' test, where the 'difference' between arms in the 'difference' between baseline and endline are compared and the statistical significance of this difference evaluated.

Gayint only) or differences in the intensity of program delivery between CARE and ORDA are more likely to have played a significant role.

While these level of dropout are not unexpected in this population, this can be problematic if certain types of girls are more likely to have dropped out. In particular, if the group of girls who are interviewed at endline is different in terms of core characteristics from those at baseline, either because they have dropped out of the program or because they were unavailable to be interviewed for any reason, this can bias the results in a number of ways. To assess the potential impact of this, the baseline characteristics of the respondents who were successfully reinterviewed at endline are compared to those who were 'lost to followup'.

The results of the comparison of the retained and lost-to-followup groups for each of the project arms are shown in full in Annex 2. Overall, these results show that the analysis sample (made up by those matched in both surveys) is selective in terms of marriage and spousal communication but not broadly selective in terms of other core outcomes of interest to this study. Those who were lost to followup were more likely to not be married (i.e. divorced, separated) – broadly speaking, the proportion of divorced girls in the group lost to followup is roughly double in the group that is lost to followup. In every arm except the control, the retained group also showed higher levels of couple communication than those lost to followup. These results suggest both that the program model was more effective at reaching married girls than divorced girls and that the results are likely to be more reflective of the program experience of girls in stable marital relationships. This should be taken into consideration when interpreting the results of the evaluation. It should be noted, however, that there is little evidence of systematic differences in the selectivity of respondents in each of the arms, even for the control arm, suggesting that inter-arm comparisons are valid from this perspective.

Presentation of results

4. Results: Economic Empowerment

Increasing the economic empowerment (EE) of adolescent girls was a central goal of the TESFA project. The program aimed to achieve this by increasing girls' economic participation in two ways:

- by encouraging participant girls to engage in income generating activities (IGAs) and paid employment, and
- by increasing saving and loans.

When coupled with the tailored negotiation skill that were also taught during the program, this increased economic participation was expected to be accompanied by an increased say in household and personal economic decisions, access to household productive assets and increased feelings of agency in the economic arena.

Given the specific focus of each of the intervention arms and the program theory of change, the expectation was that economic participation would be highest in the VSLA-only and Combined arms, followed by the SRH-only arm and finally by the Comparison arm.

Economic Activity

Work for Pay

Table 4.1 shows the change in the percentage change from baseline to endline of girls engaging in various forms of economic activities for each of the four arms and the whether this change is statistically significant. Economic participation, both in terms of having worked in paid employment in the six months prior to the survey and in engagement in various types of IGAs, increased significantly across each of the arms. The greatest increases were seen in the intervention arms, with each experiencing increases of over 30 percentage points. At endline, the girls in the Comparison arm had the lowest engagement in paid employment (81 percent of girls), while the SRH arm reported the highest engagement (at 90 percent compared to just below 50 percent at baseline). Overall, girls in all arms showed significant increases in engagement with the IGAs measured in the study, though the types of IGAs they chose to taken on varied by arm.

Table 4.1: Difference between baseline and endline in percentage of girls responding ‘Yes’ to questions over input into financial decisions.

	VSLA		SRH		Combined		Control	
Worked for money or in-kind payment	36.9	***	36.4	***	40.6	***	26.6	***
Participated in petty trade	17.5	***	2.8	*	20.5	***	19.7	***
Participated in selling vegetables	2.9	**	8.5	***	4.4	**	1.6	
Participated in raising poultry	0.4		-5.7	***	2.3		-5.8	**
Participated in selling eggs	29.4	**	32.5	***	34.7	***	21.6	***
Participated in breeding livestock	1.2		2.5	**	3.1	**	-1.1	
Participated in agricultural work	9.8	***	9.5	***	15.6	***	-25.5	***
Participated in other IGA	6.3	***	24.3	***	4.9	***	26.1	
Average income from work	143.5	***	237.6	***	171.5	***	37.0	

Note: *** denotes a p-value<0.001, ** a p-value<0.05, and * a p-value<0.10

Overall, each of the intervention arms saw statistically significant increases in IGAs with the potential for longer-term sustainability, such as the growing and selling of vegetables, selling of eggs, or breeding of livestock⁴. In contrast, with the exception of selling eggs, the statistically significant increases in the Control arm were largely restricted to shorter-term IGA engagements such as petty trade and engagement in paid agricultural work (the proportion raising poultry actually decreased by 6 percent).

⁴ The sole exception to this was that the increase in the proportion reporting breeding livestock was not statistically significant in the VSLA or Combined arms.

Furthermore, while each of the intervention arms saw statistically significant increases in the average income earned from work, the Control arm saw only a modest and non-statistically significant change.

The uniform increase in general economic activity is likely a reflection of three larger trends. The first relates to the rapidly changing economic situation in Amhara and Ethiopia more broadly over the lifetime of the project. The period during which TESFA took place saw significant improvements in transportation infrastructure in the area, the expansion of the mobile phone network into rural areas, and overall rapid economic growth. This has taken place against a backdrop of high inflation and decreasing access to land, both factors that may encourage greater labor force participation of girls. Secondly, the participating girls are all a year older at the endline than they were at the baseline and therefore may be expected to participate more fully in their household economic activities and may enjoy increased autonomy in this area. Finally, discussions with partners suggest that other programs with a focus on poverty alleviation and SRH were also operating in the project areas during the same period as the TESFA project. In the control areas in Lay Gayint in particular, a poverty alleviation program was in place that may have included some of the program participants. This in part may explain some of the economic gains made by girls in the control group.

Despite the general trend towards greater participation in IGAs, there are some clear differences between the arms in terms of the pattern of change. While the proportion of girls engaging in paid employment saw significant increases over the course of the project in the control arm, this increase was smaller than that seen in the intervention arms. For example, the Combined arm saw an increase in paid employment of 40.6 percentage points compared to the 26.6 percentage point increase in the Control arm, a difference that was statistically significant (as were the differences between each of the other two intervention arms and the Control group). The same was true for having sold eggs as an IGA over the six months prior to the survey. Coupled with the much larger increases in average income earned, these results do suggest that the program had an effect on economic engagement beyond the impact of the economic growth occurring in Amhara and Ethiopia at the time.

There are a number of possible reasons for this finding, the first being that, through the TESFA program participants learned about a greater variety of possible IGAs and were given practical guidance of how to establish their businesses and their savings. As illustrated by a girls' group facilitator in the Combined arm:

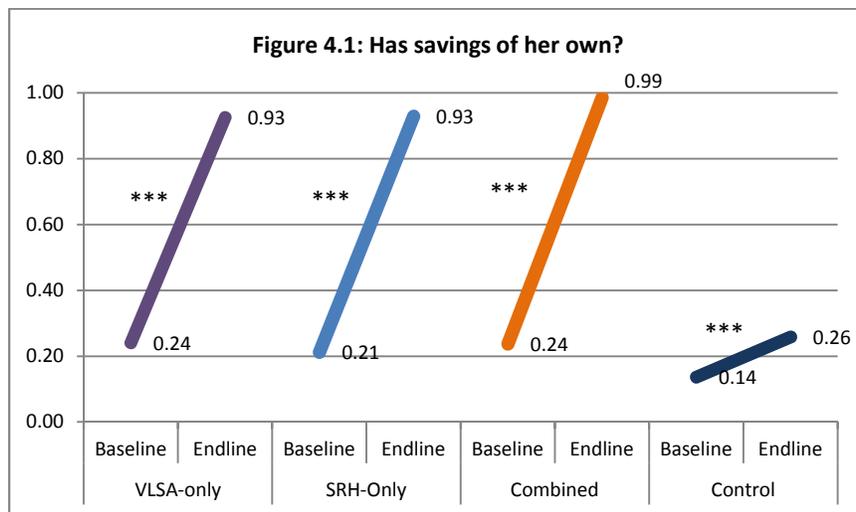
“Before TESFA, we did not have any information. After TESFA project, they taught us about different income generating opportunities. They informed us about animal fattening (sheep and ox) and poultry. They told us how we can make changes even by saving a little and involving in selling items little by little from what we have. Based on the information I gained from TESFA, I bought a hen. Then

I started selling the eggs. I used the income I obtained from selling eggs to cover my ikub and other household expenses.”

Secondly, the structured group interactions, both within and between groups (such as at the monthly review meetings) increased the exposure girls had to a whole variety of IGAs. The qualitative data suggest that this was true even for girls in the SRH arm, though their group interactions around economic activities were less structured than for the VLSA and Combined arms.

Savings and Loans

As with the more basic measures of economic engagement, there were significant increases in the proportions of participants reporting having savings of their own and, to a lesser extent, having taken loans. As shown below in Figure 4.1, experience with saving money increased by an average of 72 percentage points across the intervention arms, while increasing by only 12 percent in the control arm.



The increase in the three intervention arms is roughly equivalent, which is somewhat surprising given that girls in the SRH arm received no financial training. The reasons for this appear to lie in the dynamic of the group environment, with the qualitative data indicating that simply being part of a group encouraged girls to begin saving together using traditional saving approaches such as *ikubs*. The reliance on traditional saving approaches, while increasing the number of girls engaged in saving, may not generate the same levels of investment or productive use of savings, as discussed below.

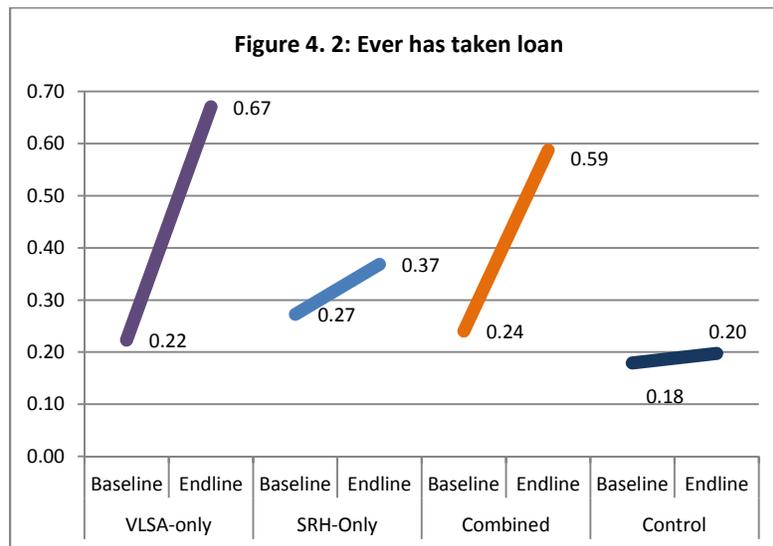
There is a suggestion in the qualitative data that some of the groups may have received informal training about savings, planning for the future and income generation, although it is unclear what the source of this information was. For example, one of the

participants in the SRH arm spoke about how she learned about the importance of savings from TESFA, said:

“I learned a lot about the importance of saving from TESFA. I had saving before TESFA. However, the saving amount was too small i.e. 5 birr per month. But now, after the education, I am saving 10 birr per month.”

However, this effect did not appear to be uniform, with not all groups in the SRH arm saving, though most girls expressed interest in doing so.

In contrast to the experience with savings, experience with taking a personal loan in the past year increased most markedly in the two arms where this was a feature of the program, as shown in Figure 4.2. The 45 and 35 percentage point increases in the VLSA and combined arms respectively (both statistically significant at the 0.001 level) were significantly greater than then the 10 point increase in the SRH arm (both statistically significant at the 0.001 level) and the 2 point increase in the control arm (the difference in the increase between each of the intervention arms and the Control arm was statistically significant). This suggests that while traditional saving mechanisms can, to a limited extent, aid in encouraging savings for girls, they do poorer job of increasing access to credit than programs where micro lending is both expected and encouraged.



Use of income, savings, and loans

One of the goals of the TESFA project’s economic training was to increase the productive use of income, savings and loans. As shown below in Table 4.2, the most common use of earned income among those who had worked at baseline was for food, followed by other household spending and then the purchase of clothing (for self or family), with savings playing only a minor role. While the general ordering of these priorities remained the same at endline, a much greater proportion of girls who were

working, over one in five, reported using income for savings. While evaluating the statistical significance of these changes is not possible due to the very large changes in the composition of the working population, the proportions reporting saving at least some portion of their income at endline were highest in the VSLA arm (28%), followed by the combined arm (23%), the SRH arm (20%) and finally by the control arm, where only three percent of girls who had worked for pay reported saving any of their earnings. Very little change was seen in terms of spending on healthcare or schooling (not shown).

Table 4.2: Proportion of those working reporting spending income on selected expenditures.

	<i>Baseline</i>	<i>Endline</i>
Purchasing food	77.6	77.9
Other household needs	44.4	35.9
Clothes for self	35.9	18.4
Clothes for family	20.2	15.4
Saving	1.5	21.5

Table 4.3 provides information about the motivation behind saving or borrowing money. The questions asked for savings and loans differed somewhat in that the savings question asked general “what are you saving for” while for loans, they were asked “for what specific purpose did you take your most recent loan?” These results are more varied than those related to income and quite different from each other. While the most commonly cited planned use of savings at both baseline and endline was clothing for the girl herself, those saving at endline were overall less likely to report that they were saving for clothing or other household needs and more likely to report saving for future health expenditures and for investment in IGAs and other productive investments, primarily livestock. As with the changes in income, by far the largest increase in planned use of savings for investment in IGAs took place in the intervention arms, particularly in the VSLA and Combined arms, and this was also true for most recent use of loans. Thirty-eight percent of those girls who reported saving money in the VSLA arm and 32 percent in the Combined arm said some was used for investment, with the equivalent figures for loans being 28 percent for both).

Table 4.3: Baseline and endline levels of reasons for saving and use of most recent loan

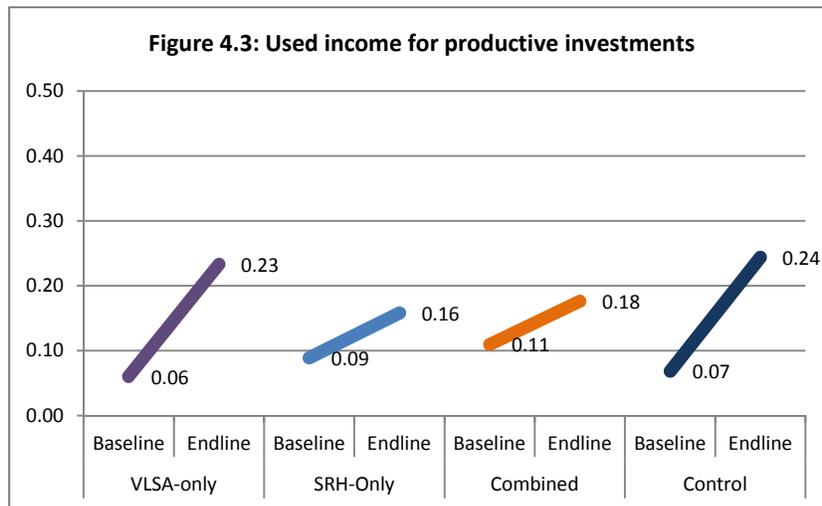
	<i>Savings</i>		<i>Loans</i>	
	<i>Baseline</i> N=669	<i>Endline</i> N=2,654	<i>Baseline</i> N=735	<i>Endline</i> N=1,507
Purchasing food	21.7	12.1	34.0	19.8
Agricultural supplies	2.5	1.9	13.7	8.9
Purchasing livestock	19.0	24.3	23.4	19.1
Other household needs	25.1	13.5	22.7	14.0
Clothes for self	48.1	39.8	7.8	4.9
Clothes for family	11.4	5.7	2.5	2.3
Own health	4.0	10.8	1.0	1.2
Health of children	4.2	8.2	0.1	1.8
Investment in IGA	5.7	25.6	6.3	25.0

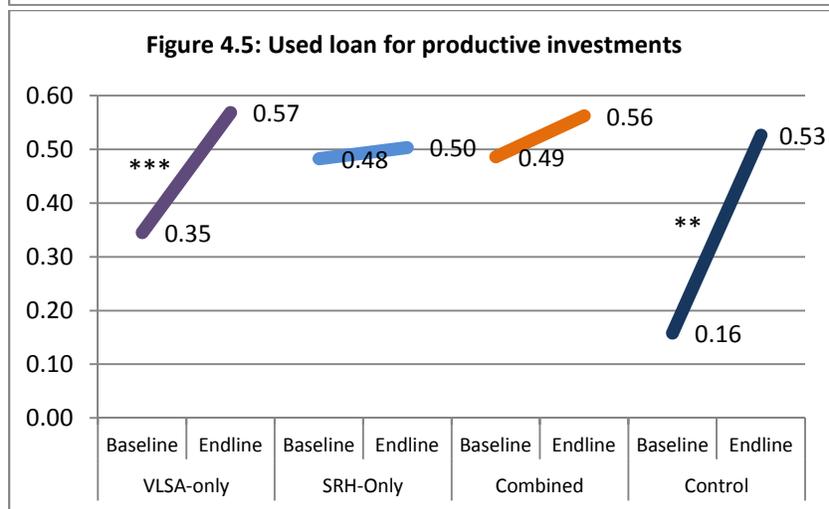
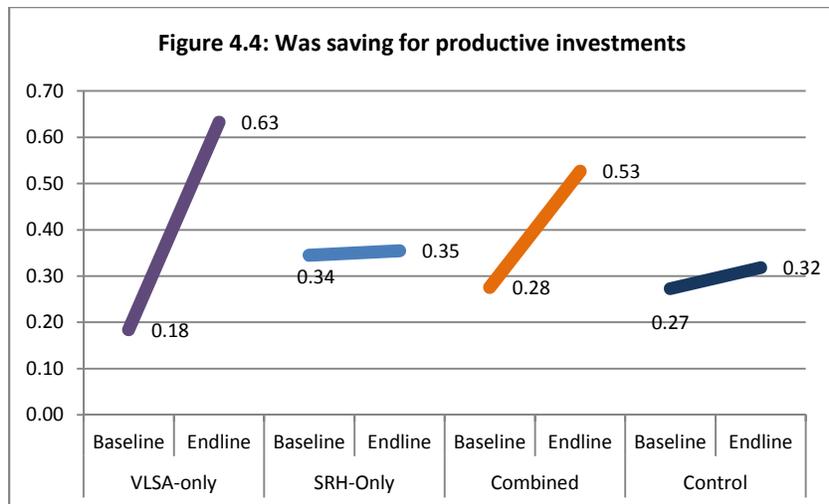
Note: *** denotes a p-value<0.001, ** a p-value<0.05, and * a p-value<0.10

These changes were observed even when restricting the analyses to those girls who were already working, saving or taking loans at the time of the baseline. For these girls, the innovation of the program is not the new economic engagement, but rather the change in emphasis and knowledge that the program itself delivered. This is illustrated by a participant in the Combined arm in the VSLA arm, discussing the change in mentality around savings:

“The savings system is different. Previously saved money to buy clothes or have feast with friends- TESFA taught us how to save and what to buy, useful things like cattle, sheep.”

As figures 4.3, 4.3 and 4.5 show, the level and significance of the changes varied considerably by activity type and by arm. The charts show the change between baseline and endline levels for using either income, savings or loans for productive investments, defined as being either (re)investments in IGAs, purchases of agricultural supplies, purchasing of livestock and the rental or purchase of agricultural land. In all cases the comparison is restricted to girls who were participating in the activity at baseline (i.e. for investment, the comparison is based only on girls who reported having worked and received an income at baseline).





The findings provide mixed support for the effect of the program content on the productive use of the money girls had available to them. While each arm saw statistically significant increases in the investment of income, there is little difference between either the different arms or the Control group, suggesting that this may be simply the reflection of a broader pattern rather than the project intervention. A similar conclusion can be reached when examining the use of loans – while using loans for investment increased significantly for both the VSLA and Control arms, the relatively minor changes in the SRH and Combined arms were not statistically significant. While the reasons for this are unclear, they do not suggest a systematic effect of the program on the use of loans. On the other hand, the pattern for the use of savings is very consistent with the expectations of program impact – while both the VSLA and Combined arms saw large and statistically significant increases in planned investment of savings, neither the SRH or Control groups changed to a significant extent (the differences between the levels of change in both the VSLA and Combined arm and the other arms was statistically significant). This suggests that the program had a more direct effect on the perceived use of savings than on income or loans. The qualitative data

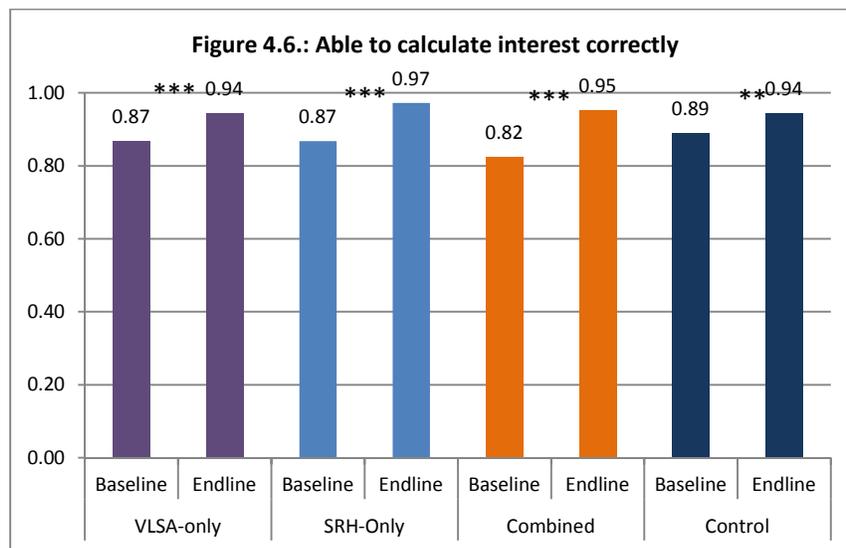
suggest that these differences reflect real differences in how participants viewed loans as mainly for emergencies and savings as more part of a planned process.

The difference in the way loans and savings were perceived by girls was expressed well by one of the participants in the VSLA arm:

“Still I do not buy anything with the saving money. We are still saving and we as a group agreed not to open our saving box before it becomes a year. If one of our group members faces an emergency case, we would give her with some interest rate, otherwise we are accumulating it and we have not divided it yet for each of us.”

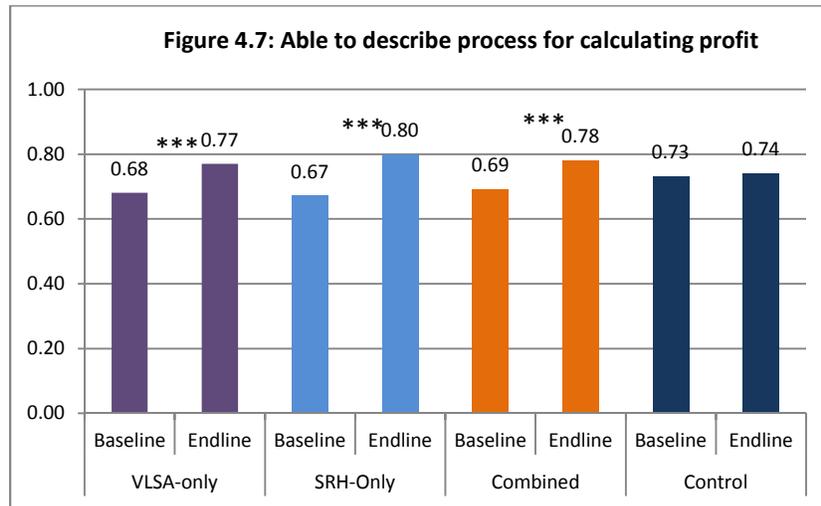
Basic financial skills

The development of basic financial skills was a key feature of the TESFA program, measured in this case by the ability to correctly calculate interest based on a simple example and being able to effectively describe the process an individual or business much go through to calculate profit. As shown in Figure 4.6, each of the arms saw statistically significant increases in the ability to calculate interest correctly, with the magnitude of these increases roughly equal. This may reflect the higher levels of engagement in the paid economy seen in each arm between baseline and endline, as girls may gain some of the basic skills through this process.



The ability of girls to describe the process for calculating profit, shown in Figure 4.7, increased significantly in each of the intervention arms, but not in the Control. However, the level of increase in each of the intervention arms was statistically indistinguishable, suggesting that while participation in the program had improved the girl’s ability to describe this process, the specific experience of being in the arms that included

economic training did not (i.e. the SRH arm had equal gains to the other intervention arms).



Control over economic decisions

In addition to simply increasing economic participation, the TESFA project also aimed to increase the degree to which participant girls controlled their economic lives. To assess this, girls were asked about:

- their involvement in decisions about working
- how earnings were used (for those who had worked)
- her feelings about the degree of control she had over her earning (again for those who had worked)
- whether she was involved in decisions about how to use her savings (for those who had savings)
- whether she was involved in decisions about how to use any loans and whether she was expected to share this with anyone (both asked only of those who took loans), and
- the percentage reporting discussing at all with their husband over the past year what to spend money on.

While the sharp increases in economic engagement make the statistical comparison of baseline and endline values particularly challenging for those variables that are dependent on economic engagement, such as control over earnings, savings or loans, the general pattern based on data from all girls suggests a trend towards greater input into these economic decisions across all arms.

As with the assessment of the use of earned income, we assess the effect of the project by examining the changes in control for those girls who were engaged in economic activities at baseline. Table 4.4 shows the size of the change from baseline to endline for

the economic variables by arm. With the exception of whether or not the girl is expected to share loans with anyone, which declined, the majority of these measures saw statistically significant increases between the baseline and endline. While there is some variation in the level of change across arms, generally the difference between arms is not statistically significant, suggesting that for girls already involved in these activities at baseline being involved in the program did not result in improvements in autonomy above those in the Control. One exception to this is the broader question of whether girls felt their opinions were taken into account when making household financial decisions, which showed statistically significant improvements in all arms except the Control arm, possibly indicating more general improvements in intervention arms that are not evident in the more specific measures.

Table 4.4: Difference in percentage of girls responding ‘Yes’ to questions over input into financial decisions.

	VSLA	SRH	Combined	Control
Girl involved in decision about working	19.5 ***	28.6 ***	25.4 ***	19.8 ***
Girl involved in decision about use of earnings	9.2 **	12.2 ***	15.9 ***	14.9 ***
Reported having 'A lot' of control over earnings	34.4 ***	27.1 ***	26.6 ***	23.8 ***
Girl involved in decision about savings	3.2	7.3 **	10.6 ***	13.6
Girl involved in decision about using loans	10.8 **	10.6 **	13.9 ***	15.8
Not expected to share loans with anyone	-7.9 **	-10.6 **	-8.3 **	-15.8
Discuss what to spend money on with husband	9.6 **	6.0 ***	3.7 **	4.8 **
Girl involved in household financial decisions	11.0 ***	14.0 ***	8.0 ***	-2.0

Note: *** denotes a p-value<0.001, ** a p-value<0.05, and * a p-value<0.10

The decline in the proportion reporting not being expected to share their loans with anyone is largely due to an increase in the proportion of girls reporting that they share loans with their husbands. The qualitative data suggest that this is a reflection of increased feelings of confidence and intimacy between marital couples rather than a loss of autonomy, therefore likely represents a step forward in the overall input girls have in this matter. This point was expressed repeatedly in the qualitative data and is illustrated by a participant in the VSLA arm, who said:

“Before the TESFA project the only thing we could decide together was on having children in spacing and family planning issue. But now we are also discussing and deciding jointly on how to save or money or our other material properties, how to increase our income, for what things we should use our money and how to manage our home.”

This is echoed by the comments of a male SAA member:

“In any of the issues, it is husband and wife who would make decision. For example, if she wants to engage in income generating activities and if she needs some money, I will give her what I have and help her in her effort. If I want to borrow money from somewhere I have to tell her and will not take loan unless

she is convinced. If I did not involve her in the decision making process, she would say, 'I did not know this' and it becomes a means for more conflict between us."

These data suggest that the negotiation skills training that formed part of the TESFA program may have contributed to this. However, the large, though not statistically significant change in the Control arm suggest that at least some of this change is due to the maturation process girls underwent during the year of the project.

The data also suggest a mixed picture for women's access to and control over productive assets. In part this is due to an increased emphasis on partnership for married girls, reducing the number of assets they could claim to make decisions over. As at the baseline, girls had the most direct control over minor, less valuable assets such as chickens. As Figure 4.8 shows, this control appeared to increase over the course of the project in those arms delivering economic training, particularly in comparison to the Control arm. In contrast, sole control over larger livestock either did not change or fell over the course of the project. The qualitative data suggest that this pattern may well be a positive development of the girls in terms of financial empowerment, reflecting an increased emphasis on cooperative and consultative decision-making between husbands and wives. The following quote is a representative example of those changes.



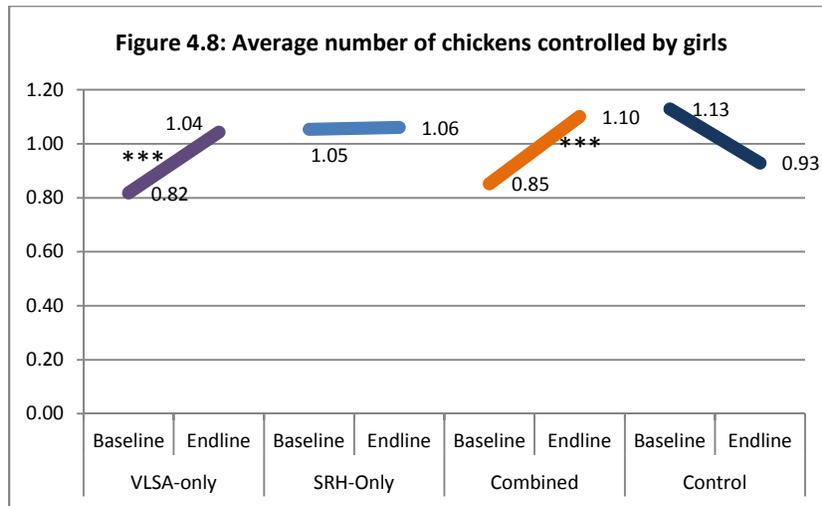
"These are my friends in TESFA; we are gathering together and counting money. We are taking for each other the money we lent it to one of our friends from our saving."

What do you feel of being with them?

"I am happy"

PhotoVoice participant

"Before, women did not have the right to decide on household properties and that was new for all of us. For instance women did not have a say on properties like ox and weapon because these properties were considered as men's properties. When we teach the issue of women's property rights and decision making role, community members used get surprised and inquire us 'how we are teaching like that.'" SAA Member, SRH Treatment Arm



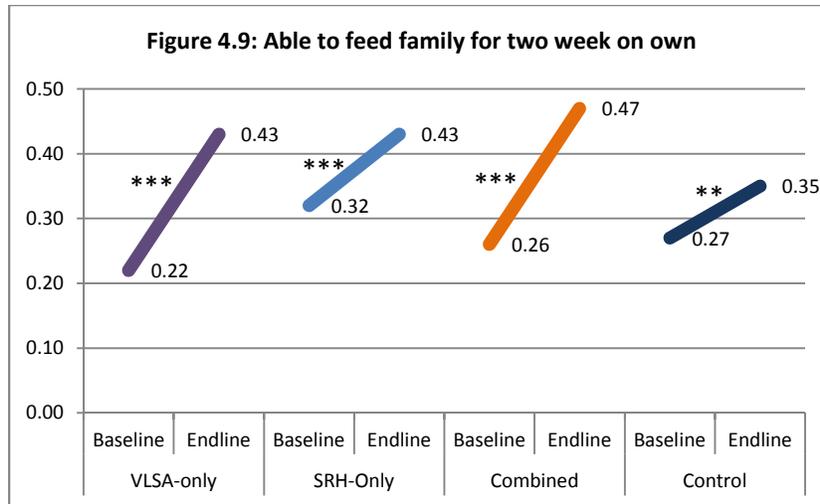
In some cases many husbands not only included their wives in the decision making process, they have come to trust their wives and ask that they play a greater role in deciding household matters:

“Do you think that the program has changed the ways your husband sees you?”- Interviewer

“Yes. For instance, previously it was him who would buy things and decide on things, he even was not willing tell me about the amount of money he expended or he has but after I have learned from TESFA, I told him about what I learned, about saving, about discussion and other issues. Since he knows about what I learned in the TESFA project now he says ‘it is you the one who should buy things and manage the house.’ So now, it is me who is buying things for our family and managing the house.”- Girls group participant, VSLA Treatment Arm

Overall economic wellbeing

While increasing economic participation and autonomy were key focal points for the TESFA project, the overall goal was to improve the economic prospects of girls and their households. In this regard, the program appears to have been largely successful – when asked if she would be able to locate the resources to feed her family for two weeks in an emergency, each of the arms saw a higher percentage of respondents agree at endline than at baseline (see Figure 4.9). However, the increase in the intervention arms was much greater than that in the control arm (in the case of the VSLA and combined arms this was statistically significant at the p-value<0.001 level).



Conclusions

The findings presented above provide a mixed assessment of the effect of the program on the economic empowerment of program participants. As the data demonstrate, the TESFA project took place against a backdrop of rapid economic changes in the study area. This may make the relatively modest changes brought about by the program harder to detect and likely contributed to the lack of a clear programmatic impact in terms of the economic criteria assessed here. Furthermore, while there are a number of areas where program participation does seem to have clear beneficial effects on the economic lives of girls, such as increased savings, greater use of income and savings for productive investments, and increased economic stability, the pattern of these improvements is not consistent with the expectations formed in the theory of change. In particular, the strong performance of the girls in the SRH-only arm relative to those in the VSLA-only arm suggests that in some cases the formation of girls into organized groups where they can collectively save and share economic experiences may be as effective as delivering a standardized economic empowerment program.

The qualitative data do, however, provide stronger support for the effect of program participation on the economic lives of the girls, particularly in the more nuanced areas of improvement such as girl's say in economic decisions. These data in particular suggest that girls have made important gains in their ability to participate in economic decisions within their households through developing more cooperative and collaborative decision-making processes, particularly with their husbands. The qualitative analyses also found that girls felt program participation had greatly increased their ability to cope with economic uncertainty and emergencies. These data also suggest that participants viewed savings and loans in quite different ways, preferring to reserve the latter for emergencies rather than using them as a source for investment funds. The reasons for this are unclear, as the loan mechanism built into the VSLA approach was in part designed to encourage girls to engage in IGAs. Whether this is a reflection of a fiscal

conservatism on the part of the girls, a greater emphasis on group-based borrowing (where the individual doesn't bear the risk of the loan herself), or other factors merits greater investigation. Further research should also seek to better understand the role that geography and potential differences in program implementation may play in shaping these findings.

5. Results: Sexual and Reproductive Health

One of the core goals of the TESFA program was to examine the effect of the programmatic approach on the sexual and reproductive health (SRH) of the participating girls. As described in the background section, this question was addressed through implementing an SRH educational program in two of the three arms (SRH and Combined), allowing changes in SRH knowledge, attitudes and practice to be compared against the two arms receiving no SRH programming (VSLA and Control). The program aimed to achieve this through the implementation of a curriculum tailored to the needs of girls in Amhara, focusing on providing basic knowledge around contraception and sexually transmitted diseases (STDs) with the goal of increasing contraceptive use and use of health services.

The expectation, articulated in the program model and theory of change, was that changes in terms of SRH knowledge, attitudes and practice would be highest in the SRH-only and Combined arms and that this improvement would be significantly greater than in the arms not receiving SRH training

Changes in knowledge

The analyses of the baseline data found that SRH knowledge among the girls in the program was very superficial, with virtually all girls being aware of basic SRH issues such as contraception or STDs but lacking any detailed knowledge about either. In this section, we examine the degree to which specific knowledge has changed over the life of the project and how this compares across arms.

Contraceptive knowledge

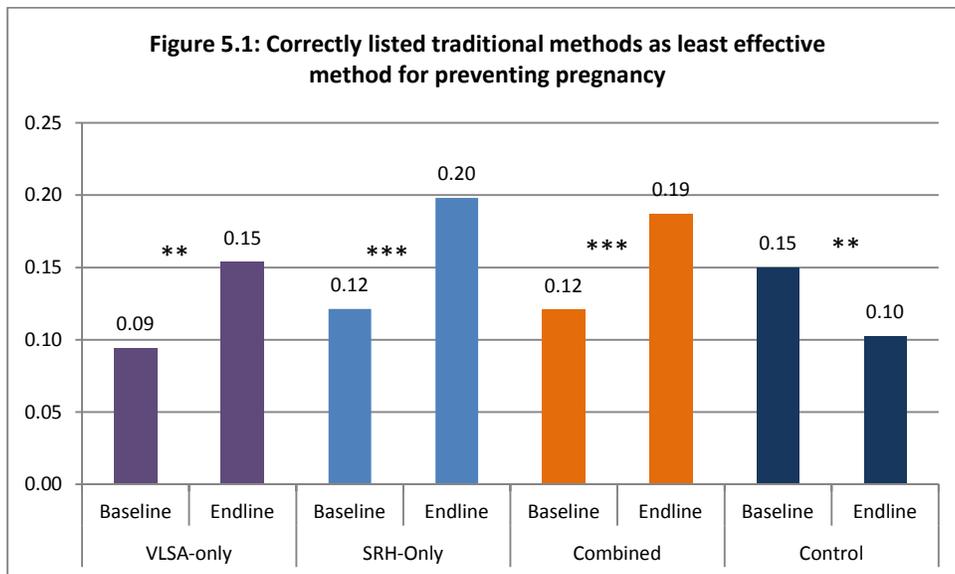
The analyses of baseline data found that virtually all respondents reported having heard of one or more of the following contraceptive methods: IUDs, injectables, implants, pills, male condoms, and emergency contraception. However, when asked what the *least* effective contraceptive method was for preventing pregnancy, 19 percent responded that they did not know, while only 12 percent correctly identified traditional methods. The response to the same question at the endline are shown below:

Table 5.1: Methods listed as *least* effective at preventing pregnancy at endline, all arms

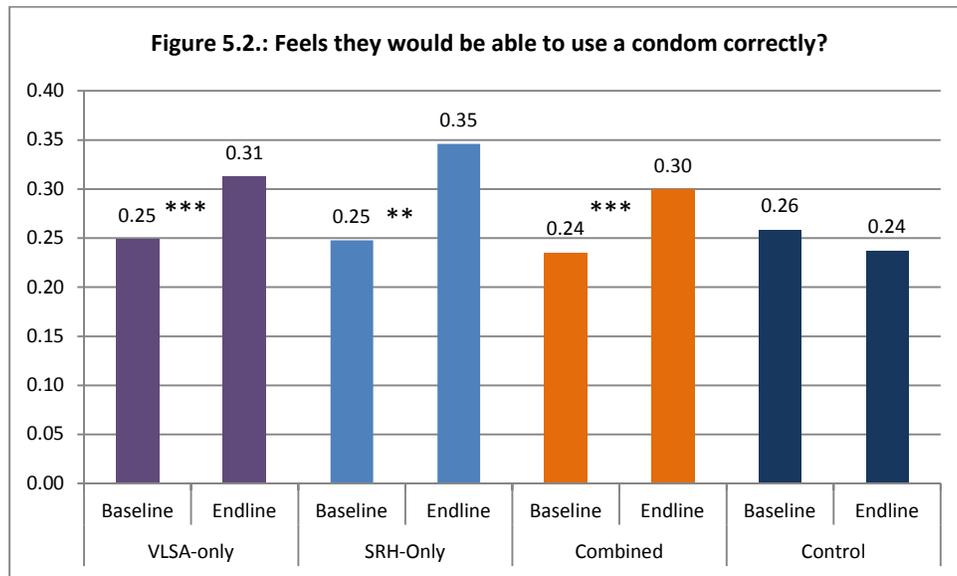
	<i>Number</i>	<i>Percentage</i>
IUD	62	2.02
Male condom	744	24.22
Pill	933	30.37
Implants	151	4.92
Injectables	277	9.02
Traditional methods	528	17.19
Abstinence	137	4.46
Don't know	238	7.75
Total	3,070	100

These figures suggest that detailed knowledge remains low, particularly with regard to specific methods, such as male condoms and the pill, that are used less in this context. The increased proportion mentioning the pill as the least effective method (increasing from 19.4 percent at baseline to 30.4 percent at endline) in particular merits additional investigation as this may be related to supply problems or other factors external to the program. The qualitative research indicated that some of the participants, even in the SRH treatment arm still held misconceptions about other methods, in particular implants (e.g. Norplant) or birth control pills. For example, girls group facilitators both in the Combined and SRH Treatment Arm felt that the implants were unsafe for working women, citing the reason that the medicine or implant itself would move around in their arm and cause pain. Others mentioned infertility and blemishes or skin changes when using the pill. However, it is also worth noting that the proportion responding that they “didn’t know” the least effective method decreased significantly, though it is unclear how much of this translated to *correct* knowledge.

In order to assess programmatic impact on girls’ contraceptive knowledge, the proportions correctly identifying traditional methods are compared in Figure 5.1. This shows that while the proportion of girls correctly identifying traditional methods increased significantly between baseline and endline, this actually declined in the control group. There were no statistically significant differences between the intervention arms in terms of the size of the increase, though each were significantly different from the control group. This implies that while participation in the program appears to encourage better contraceptive knowledge, possibly through encouraging greater use of existing health services and sharing of knowledge among group members, the increases were not statistically greater in the arms receiving specific SRH training.



A similar pattern is evident when examining the proportion of girls reporting they feel confident they could correctly use a condom, a method that is relatively rarely used by this population (Figure 5.2). Each of the intervention arms saw large and statistically significant increases, while there was a minor, but statistically not significant, decline in the control group. While the increase in knowledge was greatest in the SRH arm, however, the difference in the level of change in this arm and the other two intervention arms was not statistically significant.



Knowledge about Sexually Transmitted Diseases (STDs)

While over 70 percent of girls in the study reported having heard of or ‘knowing’ about sexually transmitted diseases at baseline, this knowledge was found to be very superficial in nature, with the majority (58 percent) not knowing any way to avoid infection. Table 5.2 shows the levels of change between baseline and endline in knowledge for a number of measures of STD knowledge by arm.

Table 5.2: Percentage point change between baseline and endline for selected measures of STD knowledge

	VLSA		SRH		Combined		Control	
Knows about sexually transmitted diseases	18.1	***	29.5	***	25.9	***	8.7	***
Able to correctly name any correct symptoms of STDs	-7.6	***	37.1	***	17.8	***	-10.8	**
Does not know any way to avoid STDs	-19.5	***	-37.7	***	-29.1	***	-7.4	***
Correctly identified condoms or abstinence as most effective protection against STDs	18.7	***	38.4	***	30.5	***	0.0	
Did not know which contraceptive method is the MOST effective protection against STDs	-18.5	***	-35.8	***	-26.3	***	-3.4	

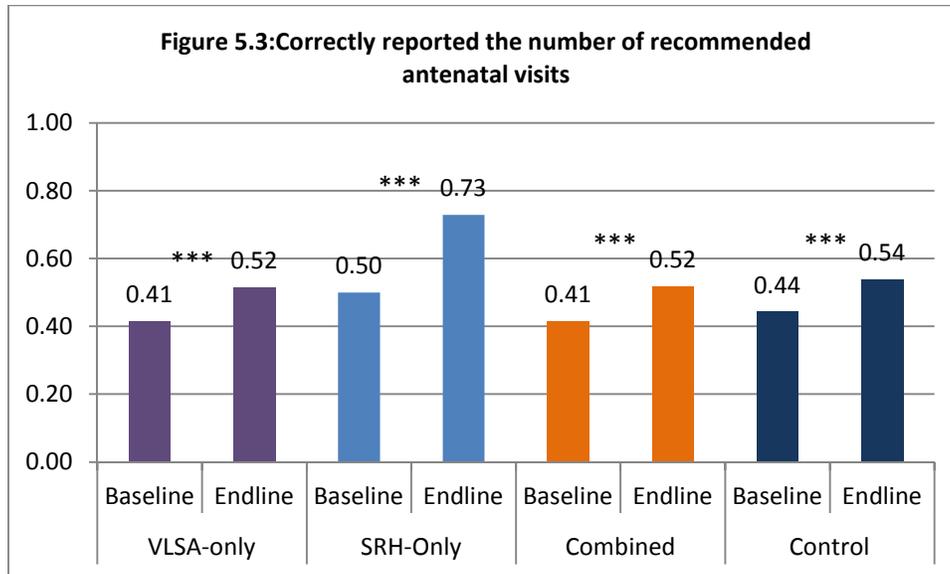
Note: *** denotes a p-value<0.001, ** a p-value<0.05, and * a p-value<0.10

These results show strong and statistically significant improvements in knowledge across all arms, but markedly more so for the two arms receiving specific SRH training. The SRH and combined arms all saw significant increases in the proportion saying that they know about STDs, are able to correctly name symptoms of STDs, are able to correctly identify condoms or abstinence as the most effective protection against STDs. Additionally, these arms saw significant declines in the proportion of girls who reported not knowing any way to avoid STDs or which contraceptive method was most effective at preventing infection. While the VSLA arm also showed improvement, both the SRH and Combined arms showed greater levels of change for each of these variables (the difference between arms was statistically significant). When compared to the control group, each of the intervention arms showed statistically significant higher levels of change for all variables with the exception of the ability to identify symptoms of STDs, which was statistically equivalent for the VSLA and control arms.

These findings provide strong evidence that the SRH education materials that formed a part of the curricula delivered to girls in the SRH and Combined arms significantly increased the knowledge girls have about STDs, their symptoms and their prevention.

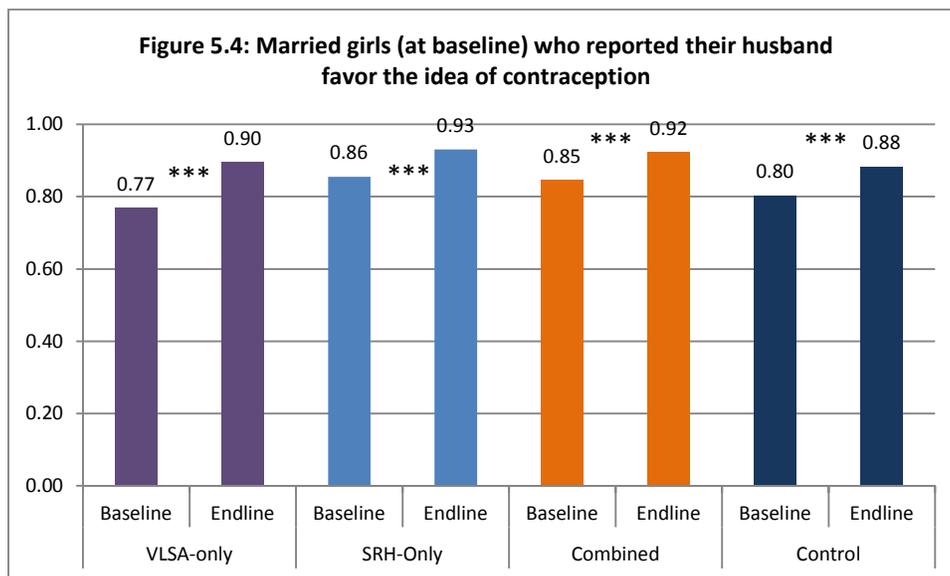
Knowledge about antenatal care

In addition to knowledge around contraception and STDs, the TESFA project sought to increase knowledge about a broader range of health care issues related to the wellbeing of adolescent girls. One area that was targeted was antenatal care, a critical health need for this population. Figure 5.3 below shows the proportion of girls in each of the arms who was able to identify the correct number of antenatal visits recommended during pregnancy (four or more). While each of the arms saw statistically significant increases in correct knowledge, by far the greatest increase was in the SRH arm, with a 23 percentage point increase between baseline and endline. The difference between the increase for the SRH and all other arms was statistically significant, but the level of change was statistically indistinguishable for each of the other arms. This does imply that the programming in the SRH arm was more successful in passing on this knowledge than other waves, the lack of a statistically significant difference between the change seen in the combined arm and both the VSLA and control arm suggests that the transfer of knowledge was less successful in that group.



Changes in views of contraception

The baseline analyses found that support for the general idea of contraception was almost universal among girls, even though specific knowledge lagged behind. One of the broader goals of the program was to build broader support for the SRH needs of adolescent girls, especially from their husbands. Figure 5.4 shows the baseline and endline levels of women’s reports of their husband’s views on contraception – to ensure comparability, only women married at the baseline are included.



These results show statistically significant increases of similar magnitude for each of the arms, suggesting a broader trend of increased support for contraception among husbands. There are likely two main reasons for this, the first being the increased communication and negotiation skills the participants learned as part of the program,

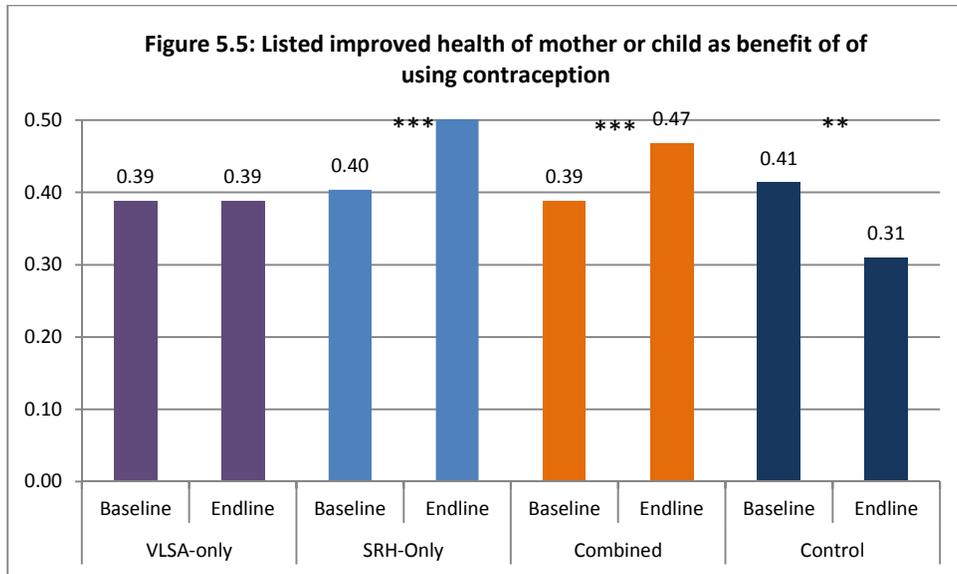
which likely enabled girls to be able to talk to their spouses about family planning. Second, contraception use was a main topic discussed with community members through the SAA Members and in their conversations with the families of participants. Although contraception was repeatedly mentioned by SAA Members as one of the more difficult topics to discuss with community members, especially among religious community members, they felt that after repeated discussions the community came to understand, accept and even internalize the need for contraception and family planning. This is illustrated in the quote below by an SAA Member in the SRH treatment arm.

“Previously when we teach about contraceptive methods there was some form of resistance from religious people. But now when we teach them that it is also equally sin giving birth without plan and ability to feed properly and let the children starve, they have begun accepting our teaching.”

One interesting aspect of this is the role priests have been playing in promoting contraception in their community and within their congregations. Their role is interesting because while previously in their role as priests they felt they were not supposed to use contraception, by the endline many of them had become influential advocates for contraceptive use and served as an example to others. This transformation was described well by a SAA member who was also a priest :

“In the beginning, community members’ were not welcoming us. Especially for us (priests) it was difficult to talk about condom use. Community members were questioning how a priest preaches about condom. As a priest they did not expect me talking about condom use. They were commenting on my role as a priest and as contraceptive promoter. However after more conversations and discussions, the community members are now accepting what we are talking about.”

When considering the motivations reported in the quantitative data for using contraception, at baseline the three primary reasons listed were: 1) being able to space child births more effectively; 2) the health of the mother or child and; 3) the ability to have the desired number of children. These remained the primary reasons at endline, but as Figure 5.5 shows, the proportion of respondents citing mother or child health changed substantially over the course of the project for both the SRH and combined arms. This is in contrast to the VSLA arm, which saw no increase and the control arm, which saw a decrease (the difference in the increase between both the SRH and combined arms and the VLSA and control arms were statistically significant).



In contrast to the reasons listed in the quantitative data, the qualitative data found that financial stability, which is closely tied to the ownership of land, was listed as the overwhelming motivation for family planning and use of contraception. SAA members, husbands and wives in all treatment arms most frequently cited the lack of land or poor financial stability as the main reason they chose to use contraception, followed by the health of the mother or the child. For example, when girl group facilitators in the combined treatment arm were asked what their motivations are for using contraceptives one responded:

“Many married couples do not have their own farm land. What has been the practice so far was sharing parents land and that is not enough to raise large family size.”

The link between economic insecurity and family planning was a persistent theme in all arms. Although contraception was not specifically taught in the VSLA treatment arm, male family members were aware of it through their interactions with the local health extension workers. One of these family members, for whom the economic situation is a major factor in his family’s decision to use contraceptives, explained the situation this way:

I heard from health extension workers. I have one child and he is 3 years old. We, both my wife and I were too young when we met as a husband and wife. We do not have enough wealth to raise children. I do not own my own land. Hence we are convinced to use contraceptives.

Male Family Member, VSLA Treatment Arm

Together, these findings suggest that one of the effects of the SRH curriculum in particular was to highlight the challenges posed by early childbearing, including those linked to economic outcomes, and link those specifically to family planning. In this

sense, the project was able to directly address a need that the community were already aware of through providing information around family planning.

Changes in SRH behavior

The ultimate goal of the TESFA project in terms of SRH was to shift actual health seeking and utilization behavior in ways that best meet the needs of the adolescent girls in the program. This section details changes seen in three core areas: use of modern family planning, visits to health facilities specifically for the purposes of obtaining family planning, and obtaining an HIV test, which may in some ways act as a proxy for broader use of the health system.

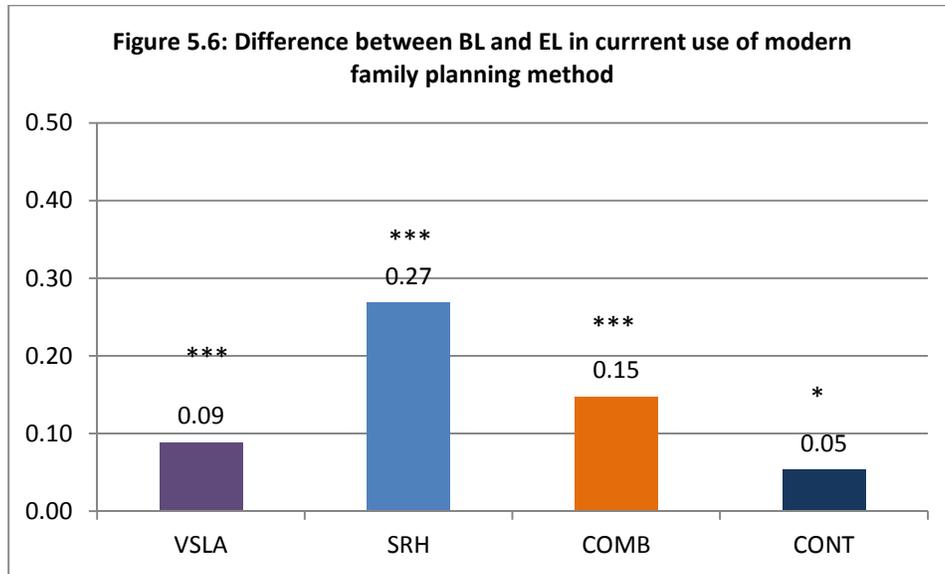


“This is me and I am taking injection contraceptive. This is after TESFA project. I have one child and I want to wait until my child becomes strong enough. I went to Sally health center to get it.”

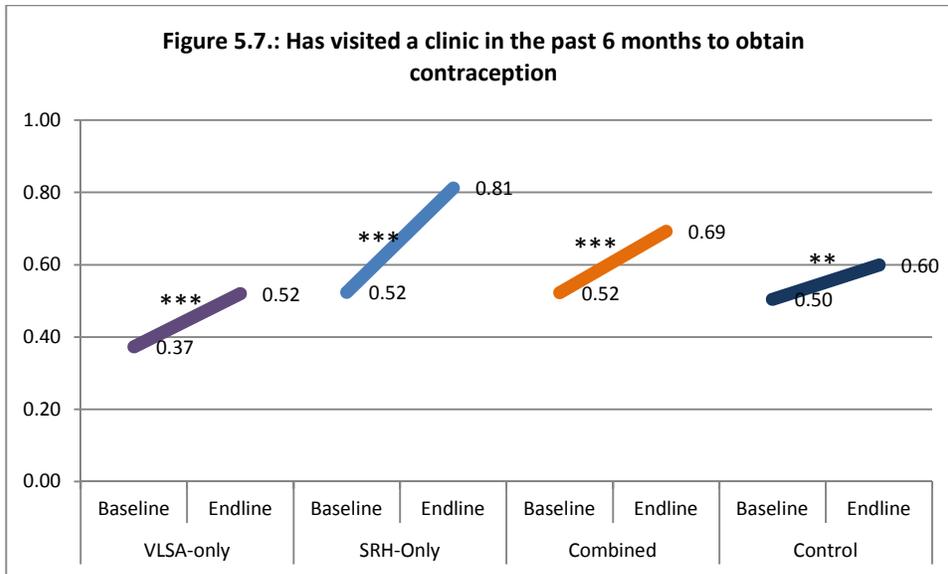
PhotoVoice participant

Figure 5.6 shows the percentage increases in use of modern family planning methods between baseline and endline. While the control group saw a modest and marginally statistically significant change of five percentage points over this period, each of the intervention arms saw large and highly significant increases, with the greatest being in the SRH arm. The 27 percentage point increase for the SRH arm, with over three quarters (78 percent) of girls using family planning at endline, was statistically greater than each of the other arms (p -value <0.001 in all cases), while the 15 point increase for the combined was greater than both the VSLA (p -value=0.041) and control

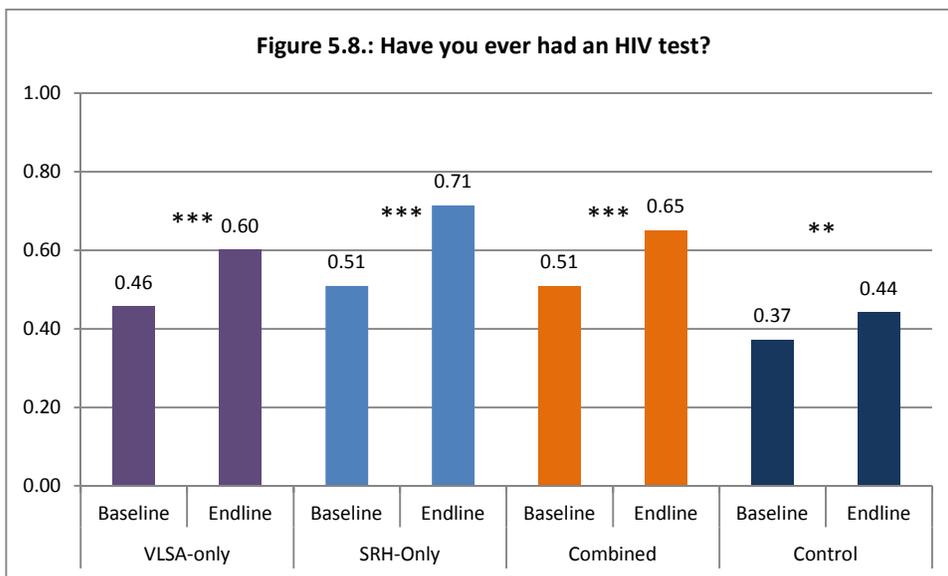
(p -value=0.012) arms. These findings suggest a large and significant effect of the SRH curriculum on contraceptive behavior.



The increases in contraceptive use are reflected in the use of health services by girls for the purposes of obtaining family planning, as shown below in Figure 5.7. Statistically significant increases were seen in each of the arms, with the greatest gains seen in the SRH and combined arms. As with the current use of family planning, the greater increase in these arms and the VSLA and control arms was statistically significant, suggesting that the SRH curriculum served to encourage girls to both seek out and continue to use family planning at rates well above what might have been expected without the intervention. However, while the gains in the other two intervention arms were smaller, the qualitative data strongly indicated that program participation increased use of health care services. Health Extension Workers in particular reported that even in the VSLA arm girls who were involved in the program were more confident in seeking their services and that their increased visibility and mobility made them much easier to identify, approach, and provide services to than was the case in the past or for girls not involved in the program.



The effect of participation in the TESFA project is also evident in the changes seen in other health seeking behavior, such as the proportion of girls having had a HIV test (Figure 5.8). While each of the arms, including the control, saw statistically significant increases in the proportion of girls who had been tested for HIV, this increase was larger and statistically significant in each of three intervention arms. It is important to note how large these effects are – at endline over sixty percent of girls in each of the intervention arms reported having being tested for HIV.



Decision-making and communication around SRH

As with the economic empowerment component, the TESFA project aimed to empower girls by providing them with tools to increase their autonomy in decisions related to

their sexual and reproductive health. This was done through both the provision of basic SRH information and through training on negotiation skills that formed part of the broader life-skills training featured in each of the intervention arms. Table 5.3 presents the percentage point changes between baseline and endline for four measures of empowerment related to SRH. With few exceptions, there were large and statistically significant increases in these measures in each of the arms. For the most part the increases were significantly larger in the intervention arms than in the control arm, particularly when compared to the change in the SRH arm.

Table 5.3: Percentage point change between baseline and endline for selected measures of decision-making and communication around SRH issues

	VSLA		SRH		Combined		Control
Does discuss family planning with husband	11.9	***	12.6	***	8.9	***	6.4 **
Feels that her opinion taken into account for family planning decisions?	8.3	***	11.4	***	3.1		2.9
Girl involved in decision about whether or not to use contraception	15.1	***	18.8	***	20.5	***	10.3 ***
Girl involved in decision about whether or not to have a child	18.2	***	20.9	***	20.2	***	16.2 ***

Note: *** denotes a p-value<0.001, ** a p-value<0.05, and * a p-value<0.10

While these findings do suggest that the TESFA program had an effect on communication around SRH that extends beyond processes of social change or the maturation process at the individual or couple level, it is important to note that communication is relatively high in all arms. Even in the control group over three-quarters of girls at endline provided an affirmative answer to each of these questions – in the SRH arm these numbers were closer to 90 percent.

The increases in joint decision-making process, also seen in the analyses of economic changes, were a persistent theme emerging from the qualitative data analyses. Girls reported increased discussion and consultation around these issues in ways that gave them more input into family planning and reproductive decisions. One of the participants in the SRH arm expressed this in the following way:

Yes, I and my husband discuss a lot about family planning and when to give birth. I already knew about contraceptive before TESFA. However, TESFA helped me to discuss about it more and know about contraceptive methods and birth spacing more. I can say that my knowledge regarding health has significantly increased after my involvement in TESFA.

While it is true that many participants mentioned improved decision making and communication around contraceptive use and family planning, unlike the economic indicators, there was some indication in the qualitative discussions that husbands and family members still had the final say.

Do you equally participate in decision making on everything together?

*Yes, I participate in decision making. However, there are times where he wins. For instance, **I did not want to have this baby**. I always wanted to continue my education. Now he is convinced and I will resume my education after our child start walking.*

What would do you if he says no?

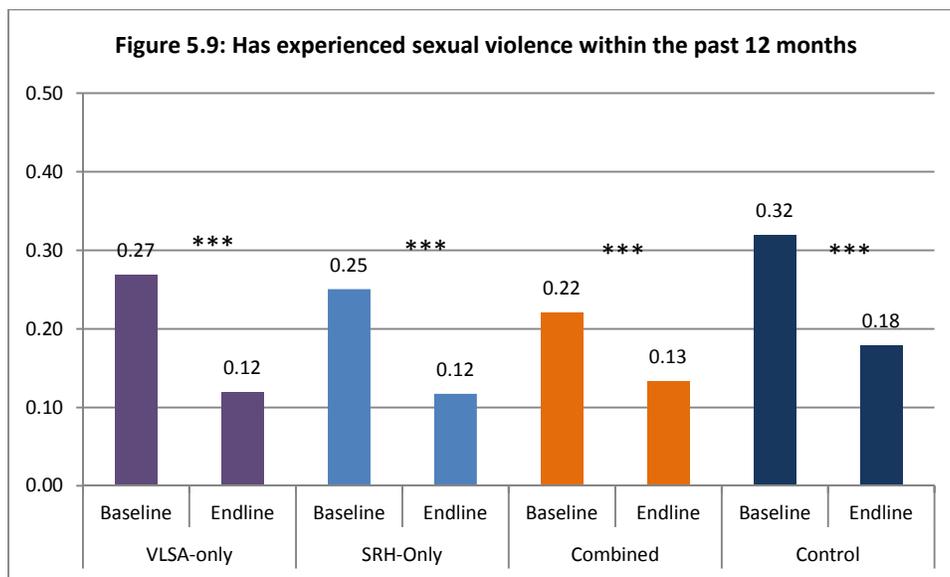
I would agree with him.

Probe: what if the husband does not allow a woman to take contraceptives?

It depends on the knowledge of the wife. If she is aware of many things, she would use contraceptive hiding from him.

Girls Group Facilitator, Combined Treatment Arm

Similar positive patterns to those around family planning can be seen when examining experiences with sexual violence, which fell significantly across the entire study population as shown below in Figure 5.9.



While the 12-month time frame makes it difficult to assess the impact of the program on experiences of violence (because the effect of the program on violence is likely to be a process of gradual rather than sudden change, girls may report quite high levels of violence even if this has declined more recently simply because they are reporting on events closer to the start of the project), the qualitative analyses suggest that violence of all types fell dramatically during the period of program participation, largely as the result of increased partner intimacy and improved communication and more equitable gender roles. Participants and community members frequently cited more equitable gender roles as a motivational factor in the decline of abuse, as expressed by a female SAA member:

Previously, a wife was expected to wash their husband's feet. A woman were beaten up, husbands were not ready to share household chores "ney disetu genefelelesh nebere yemilew" which means the cooking pot is overflowing and come and do something about it). But now, if I am busy doing something else, he will help with the cooking pot. I am aware of my rights; my husband and I are solving our problems through discussion. I am not talking only about myself I am also talking representing others. ." SAA member, Combined Treatment Arm

Conclusions

These findings document a number of significant changes in SRH knowledge, attitudes and behavior over the course of the year between the baseline and endline surveys and provide strong support for the program approach. The results largely follow the hypothesized pattern, with the largest changes typically taking place in the SRH arm, followed closely by the combined arm. Together, these findings suggest that the SRH curriculum has had a strong and statistically significant impact on these outcomes that is well beyond the level of change that might have taken place without the program, as evidenced by the changes in the control arm.

6. Results: Social Impacts

Encouraging and enabling changes in the social status of adolescent girls is a central part of the theory of change underlying the programmatic approach taken by the TESFA project. Both the SRH and economic empowerment curriculums included a life skills component that aimed to enhance girl’s ability engage effectively with other household members, particularly husbands. This included sessions on effective conflict resolution and negotiation around economic and SRH issues. These efforts were supported by the curriculum used in the SAA groups, which focused on topics such as gendered power, the health impact of early marriage and childbearing, and equitable decision-making within households.

This approach aimed to gradually encourage mutually reinforcing changes in gender norms that would enhance the lives of participating girls at both the community and household/couple levels. In addition to equipping girls with communication skills around SRH and economic issues, it was hypothesized that these social changes would result in increased intra-couple communication, an expanded social network, lower levels of domestic violence and improved mental health.

The program model and theory of change do not differentiate between arms in terms of the expectations for the levels of this change, so these analyses focus primarily on the differences between the three intervention arms and the control arm, though differences between intervention arms are discussed when relevant.

Spousal communication

The analyses of the baseline data indicated that for the most part intra-couple/spousal communication was very poor for this group. For example, over twenty percent of girls reported never discussing things that happened to them during the day with their husband. Table 6.1 shows the change between baseline and endline for a variety of measures of spousal communication for each of the project arms.

Table 6.1: Change between baseline and endline in proportion of respondents who reported discussing issues ‘often’ or ‘sometimes’ with their husbands.

<i>Topic</i>	<i>VSLA</i>	<i>SRH</i>	<i>Combined</i>	<i>Control</i>
Things that happened to her during day	13.1 ***	9.4 ***	10.0 ***	2.7
Her worries or feelings	15.2 ***	12.4 ***	7.9 ***	3.7
Her hopes for the future	15.0 ***	15.3 ***	10.7 ***	7.4 **
What to spend money on	9.6 ***	6.0 ***	3.7 **	4.8 **
Things that happen in the community	19.5 ***	16.2 ***	14.1 ***	12.0 **
When to have children	15.1 ***	13.1 ***	8.6 ***	8.3 **
Whether to use family planning	11.9 ***	12.6 ***	8.9 ***	6.4 **
Where to get family planning methods	18.8 ***	12.6 ***	8.9 ***	6.4 **

*Note: *** denotes a p-value<0.001, ** a p-value<0.05, and * a p-value<0.10*

These results show a broad trend towards increased communication across all arms, including the control group (the exception being the lack of statistically significant change in the control arm when pertaining to discussions of things that happened to the girl during the day and her worries or feelings). However, the levels of change in communication levels are consistently higher in the intervention arms than in the control arm, particularly for the VSLA and SRH arms. While both the VSLA and SRH arms showed increases in communication that are statistically significantly greater than those in the control group for all of the measures of communication, the only measure where the increase in communication was greater in the combined arm than in the control arm was in communication about daily events. In other words, the combined and control arms experienced very similar patterns of increase in communication for each of the measures examined, while the VSLA and SRH arms both saw larger increases despite girls in the combined arm receiving training focused on both economic and health factors. In part, this is explained by the fact that the combined arm had higher levels of communication at baseline than either the VSLA or SRH arms, leaving less 'room' for improvement.



“This is my husband washing his feet.
Did he do this before?
Previously, this was my duty but now
he is doing by his own. Previously
this was my duty because I was not
helping him at the farm.”

A PhotoVoice participant

This latter point is illustrated well by Figure 6.1, which shows the change in an additive scale based on the measures in Table 6.1 that is designed to indicate the overall level of communication between spouses. This scale is constructed by assigning those who reported any communication on a specific measure a score of '1' for that measure and then adding the 'score' across the full set of measures that ranges between zero and eight. The use of the scale allows for a broader perspective on change than focusing on individual measures and better captures change that takes place across multiple measures within a single project arm.

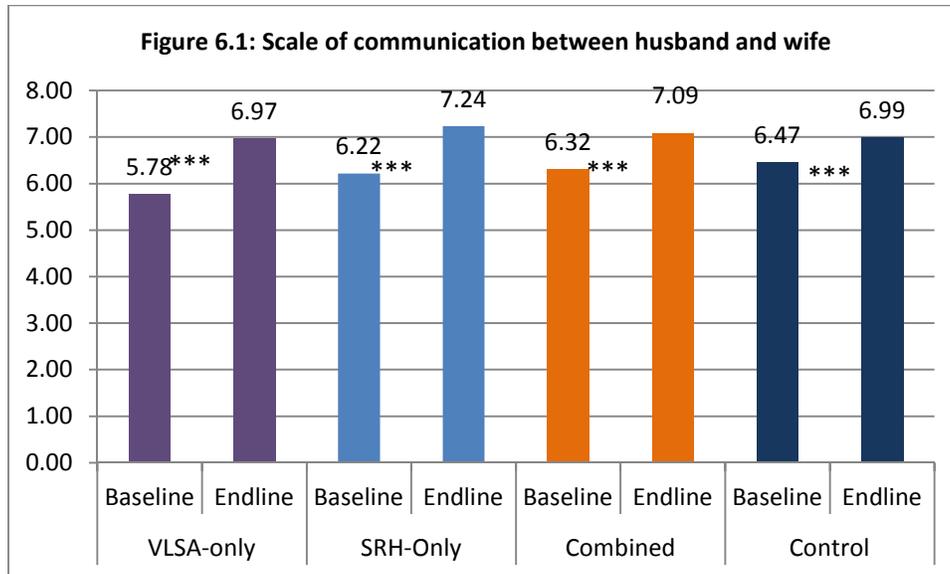


Figure 6.1 largely confirms the broad gains in couple communication over the year between baseline and endline for all arms. The greatest increase in overall communication took place in the VLSA arm, where the average number of topics girls discussed with their husbands increased from 5.78 at baseline to 6.97 at endline, followed by the SRH arm, the combined arm and finally the control arm. However, this is partially explained by the fact that the latter three arms had significantly higher levels of communication at baseline than the girls in the VLSA arm, with both the SRH and combined arm having considerably higher levels of communication at endline despite a smaller change between baseline and endline.

Overall, these findings and those presented in Table 6.1 strongly suggest that program participation resulted in increased couple communication relative to the *status quo* represented by the control group. This conclusion is strongly supported by the qualitative data, with improved communication and marital relationships mentioned by all the groups interviewed in all of the intervention arms. The dynamics of this change are narrated below:

Before, I would expect my wife to wash my feet when I get home. It doesn't matter if she was with me in the farm or not. I observed huge difference in our life before and after TESFA. It is like the distance between the earth and the sky. Before TESFA, when I want to sell cattle, I would not tell my wife. She has no saying. But now we discuss in every family matters and we will decide after discussing what we want to do. If my wife doesn't agree, I will try to persuade her by strengthening my arguments. If she resists the idea, I will respect her decisions.

Male SAA Member, Combined Treatment Arm

After TESFA, we (I and my husband) would discuss in everything. For instance, if my husband wants to sell a sheep he will tell me why he wants to sell a sheep or any other household assets. We will discuss about the advantage and disadvantage. Before TESFA, he will just do whatever he wants without consulting. But now, he doesn't do a tiny thing without discussing it with me.

What about you? Would you buy something like a chicken by yourself? Or do you need to discuss about it with him?

Yes, we will discuss everything. None of us will do without discussing it with each other.

If you say no when he wants to sell something, would he stop selling the asset?

He would stop it. Before TESFA, he will not even tell me. But now, both of us are participating in TESFA we do everything through discussion

Girls Group Member, Combined Treatment Arm

The emphasis on joint decision-making emerged as a consistent theme and helps explain the relatively small increases in sole control girls have over economic assets, initially considered a core indicator of empowerment (for example, for each asset the household owns, girls were asked how many they had sole decision-making authority over). In this context, it seems that a clear move towards joint decision-making is the preferred outcome for girls, something the TESFA project nurtured with great success.

Gender-based violence

The high levels of gender-based violence (GBV) experienced by adolescent girls in Amhara were an important motivation for the gender-transformative portions of the approach taken by the TESFA project at both the community and individual levels. The baseline data indicated that over half of the girls included in the study had experienced some form of psychological, physical or sexual violence in the year prior to the survey. The program sought to address this both by encouraging discussion about gender, power and rights within communities through the SAA groups, but also through the life skills/negotiation/conflict resolution training that formed part of the broader curriculum. Table 6.2 presents percentage point change for four broad types of GBV⁵ between baseline and endline for those girls who reported being married at baseline.

Table 6.2: Change between baseline and endline in proportion of respondents who reported different types of violence in past 12 months.

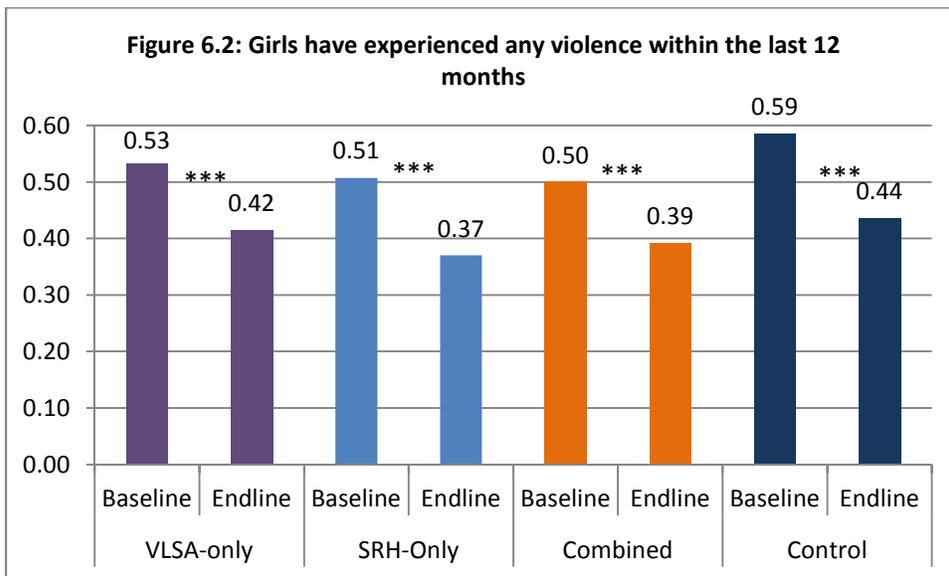
<i>Experienced in last 12 months</i>	<i>VSLA</i>		<i>SRH</i>		<i>Combined</i>		<i>Control</i>	
Psychological violence	4.8	*	4.1	**	2.9		5.1	
Threats for physical or sexual harm	17.8	***	10.5	***	13.0	***	11.0	**
Physical violence	10.4	***	6.3	***	8.0	***	6.0	**
Sexual violence	14.9	***	13.3	***	8.7	***	14.0	***

*Note: *** denotes a p-value<0.001, ** a p-value<0.05, and * a p-value<0.10*

⁵ Each of these groupings represent combinations of questions from a larger list of 11 indicators of violence. For a full list, please refer to the baseline report.

These results show very significant declines in violence in each of the arms, with the exception of psychological violence, which remains the most common form of violence at endline. The decline in reported levels of violence was particularly large in the VSLA arm, followed by the SRH arm, with the combined and control arms showing similar levels of decline. These results suggest participation in the program further accelerated a broader pattern of positive changes regarding GBV, particularly with regard to threats of violence and actual sexual violence. The qualitative analyses indicated that violence fell during the period of program participation and suggested that this was largely the result of increased partner intimacy and improved communication and more equitable gender roles. Participants and community members frequently cited more equitable gender roles as a motivational factor in the decline of abuse, particularly in the combined arm.

While the declines in each of the dimensions of GBV are encouraging, it is worth noting that levels of violence remain high, as shown in Figure 6.2, which presents the percentages of girls at both baseline and endline reporting experiencing any type of violence in the year prior to the survey. While the pattern of systematic decline remains, around 40 percent of girls in each of the arms continued to report experience with violence at the endline.



Mental health

In addition to high levels of GBV, the baseline data also found that large proportions of the adolescent girls surveyed exhibited symptoms of poor mental health. Almost half (49.6 percent) reported feeling unhappy and one-third reported feeling nervous, worried or tense. It was anticipated that one of the outcomes of the TESFA project

would be an improvement in mental health due to the potential increase in self-esteem and self-efficacy that would result from gaining new skills and experiences.

Several participants were able to articulate how their new skills lead to an increase their self confidence. Here is an example from a girl’s group participant in the SRH treatment arm.

After I involved in TESFA, I believe in myself. I know I can have good status if I do different things like involving in business. I have skills to cope with problems. Before, I was not thinking like this and did not have developed self-confidence. Now, I have the knowledge and problem solving skills if I encounter any problems. I can solve them by my won. Since I have the awareness, it helped me to keep myself and my house clean, to live good life and to think and feel good.

Table 6.3 shows the change experienced in five key mental health measures between baseline and endline. As with GBV, the data show a clear pattern of improvements in mental health, with the proportions experiencing adverse psychological symptoms falling in each of the project arms. Overall, the improvements in the intervention arms are greater than those seen in control group, particularly for the SRH and combined arms. In most cases these changes are large, representing real improvements in mental health – for example, the percentage in the SRH arm reporting they felt unhappy fell from 47 percent at baseline to 36 percent by the endline.

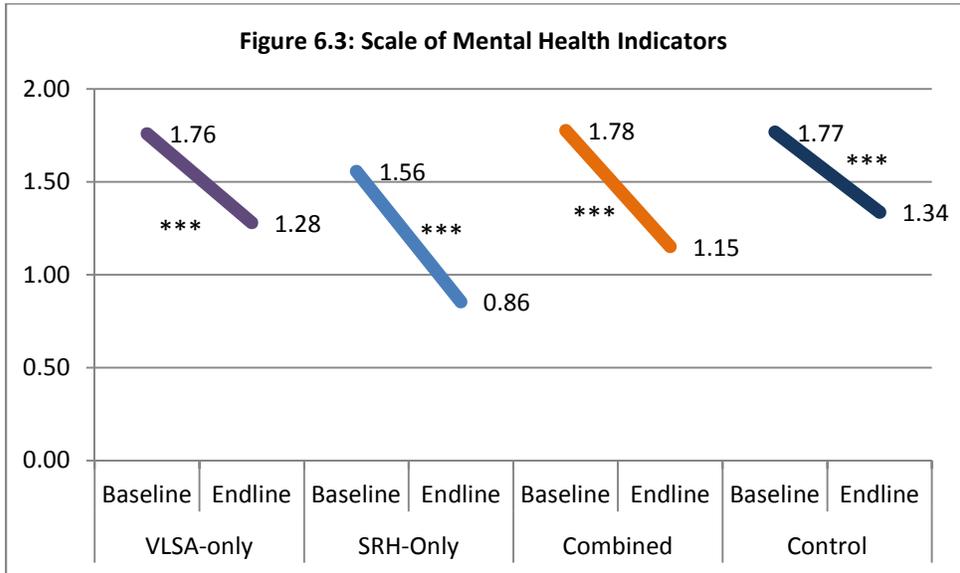
Table 6.3: Change between baseline and endline in proportion of respondents answered ‘Yes’ when asked about measures of mental health

<i>Experienced in last 12 months</i>	<i>VLSA</i>		<i>SRH</i>		<i>Combined</i>		<i>Control</i>	
Do you sleep badly?	-7.6	***	-13.4	***	-13.4	***	-6.3	**
Do you feel nervous, tense or worried?	-6.4	**	-14.5	***	-14.1	***	-9.2	**
Do you feel unhappy?	-7.2	**	-11.2	***	-7.5	**	-10.0	**
Do you find it difficult to enjoy your daily activities?	-8.7	***	-13.9	***	-10.4	***	-2.1	
Do you feel you are a worthless person?	-17.9	***	-16.9	***	-17.4	***	-15.5	***

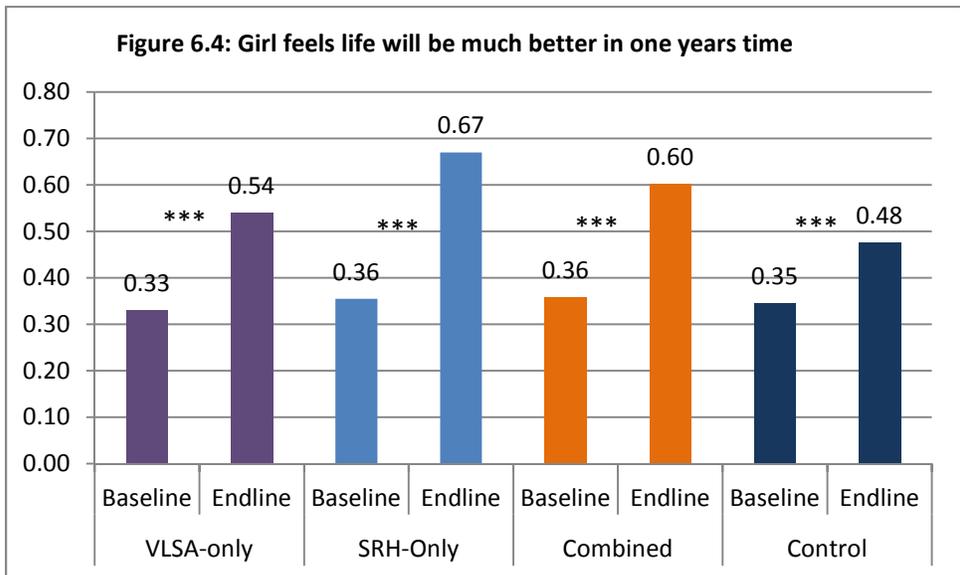
*Note: *** denotes a p-value<0.001, ** a p-value<0.05, and * a p-value<0.10*

The data present a similar pattern when aggregated into an additive scale of mental health, as shown in Figure 6.3. As with the communication scale described above, individuals were given a ‘score’ on a scale of 0 to 5 based on their responses to the questions included in Table 6.3, with declines in the ‘score’ indicating improved mental health. The pattern of change in this aggregate indicator largely reinforces the conclusions reached through examining the individual measures of mental health, with the change in the SRH being larger at a statistically significant level than those in either the VLSA and control arms while being roughly equivalent to that seen in the combined arm. This suggests both that program participation has a positive effect beyond the

status quo and that there may be aspects of the SRH curriculum that have a particularly beneficial effect on mental health.



The improvements in mental health described above are reflected in the degree of optimism that girls show in terms of their expectations for the future, as Figure 6.4 shows clearly. When asked how they felt their life would be one year following the interview, the proportion responding ‘much better’ had increased significantly in all project arms. As with the other changes in mental health, the improvements were particularly noticeable in the intervention arms, all of which saw increases of over 20 percentage points. Once again, the greatest improvements were in the SRH and combined arms.



One of the main sources for improved mental health that was identified by the participating girls during the qualitative data collection was the deep friendships that the group structure enabled. This is reflected both in terms of increased number of close friends (the quantitative data showed statistically significant increases in this regard across all arms), but also the intensity of these bonds. While the group dynamics varied across the project, the qualitative data strongly suggest that the groups helped to establish and strengthen friendships and provide a social support network participants, many of whom who had never experienced that before. This dynamic is captured by the report from a participant from the combined arm, who discussed her experience in the following way:

I have good friends in TESFA. We learn from each other and also help each other a lot. For instance, if one of our friends' husband say 'I do not allow you to use contraceptive methods' we would facilitate in secret for her to take contraceptive. In our group discussion, we learn a lot from each other.

Where do you go if you face challenges/problems? Do you count on your friends?

Yes, my TESFA friends are the most reliable ones. If I have a challenge to pay my saving, we support each other. Even though we cannot give money, at least we will discuss on the issue and offer ideas.

Girls Group Participant, Combined Treatment Arm

Another reason TESFA participants felt an increased sense of hope and happiness was their new found outlook on their marriage and the improved relationship with their husband or in-laws.

My attitude about marital life has changed now. Now I like my marriage and have the confidence to change my life. Before TESFA, I did not have a positive attitude towards my marital life. Girl Group Participant, SRH Treatment Arm

Both husbands and in-laws reflected the similar changes in their relationships with TESFA participants. The following quote by a male SAA member from the combined treatment arm not only reflects the improved relationship with his wife he also mentions the burdens she faces; this increased empathy towards young married girls and the recognition of the challenges they face was common among family members.

Before TESFA, there were a lot of burdens on women. There was not much caring and love for each other. She would not care about his feeling because she was given to him without her interest/will. He would not care much about her and he would do what it takes to maintain his interest in the house. But TESFA brought us huge changes and we are grateful.

Conclusions

The findings presented in this section, both qualitative and quantitative, provide strong support for a large and positive impact of the TESFA project on a number of social outcomes that influence both the key economic and health outcomes that are of central interest to this evaluation. While the control arm also experienced significant improvements in most of the measures examined in this section, possibly due to the maturation of girls within their roles as wives and mothers, for the most part change was larger in the intervention arms. When comparing the three intervention arms to each other, it appears that the SRH arm experienced the greatest improvements, followed by the combined and finally the VSLA arms. The exception to this is the findings for GBV, where the VSLA arm saw the greatest improvements, though the change in the other arms were also significant.

Overall, the results suggest that the approach taken by the TESFA project for encouraging social change around issues of gender, power and rights has been very successful. The group-based approach, both for the SAA and girl groups, appears to have been very successful in stimulating discussion, developing new norms around behavior, and encouraging the sharing of information and different perspectives. Perhaps more fundamentally, these groups provide support networks that allow the girls to share experiences and feelings in ways they had not been able to do before. Together these approaches appear to have resulted in real and fundamental changes in the mental health of participant girls, thus significantly improving their lives on a day-to-day basis.

7. *Conclusions*

This evaluation seeks to address two key questions:

3. What impact did participation in the TESFA project have on the lives of the adolescent girl participants in terms of their economic opportunities, sexual and reproductive health and general wellbeing?
4. Does the combining economic empowerment training with sexual and reproductive health training result in greater impact than when each is delivered separately?

Overall Impact

As the results and discussion in the preceding section describe, the evidence suggests that program participation has significantly improved the lives of participating girls in all of the key outcomes included in this evaluation. These results are clearest for the SRH and social outcomes, where the intervention arms clearly outperformed the control arm, but the broad trend of greater improvement within the program arms is also evident when examining economic outcomes.

The program's effect on economic outcomes is most evident when examining more nuanced measures of economic behavior and knowledge, such as the use of savings and basic financial literacy, a pattern consistent with the qualitative findings. These suggest that the primary effect of the program in economic terms has been the acquisition of core skills by the girls that will serve them well in the future. The gains in confidence in their ability to provide for and contribute to their families support this. This suggests that some of the effect of participation in the TESFA program will be more evident over the longer term. It is clear that in economic terms there have been significant gains for girls in the project area for reasons other than the project itself, and that these changes have been generally large enough to overshadow the more nuanced benefits of participation in the TESFA project.

The overall pattern for sexual and reproductive health is also one of broad gains, though the evidence for a strong positive effect of program participation is very strong. Girls who received SRH training as a part of their participation in the TESFA project saw much larger gains in virtually every indicator examined in this evaluation than in either the VSLA or control arms. These included changes in use of modern contraception, knowledge about contraception and sexually transmitted diseases, use of health facilities and services, community support for improving the SRH services of girls, and communication with husbands and family members about SRH matters.

The improvements in spousal communication seen in the economic and SRH domains were symptomatic of much broader changes in spousal relations across the three program arms. Both the qualitative and quantitative findings suggest that the

negotiation skills included in the TESFA program, while initially aimed specifically around economic or health issues, have had a much broader impact, leading to increased communication over a broad range of topics. Furthermore, girls reported increased respect from husbands and overall lower levels of conflict. Broader social changes were also seen in terms of community support, with the SAA groups in particular proving to be key catalysts of change at the community level. This extended beyond the girls included in the project, with SAA group members taking it upon themselves to prevent further marriages of girls – over the course of the project, there were 180 of these marriages blocked in this fashion. These fundamental changes were very much evident in the qualitative data, with SAA members often being the most eloquent of advocates for the program. These changes, coupled with large changes in self-esteem and self-efficacy among girls, suggest that the changes caused by the program will be even broader and longer lasting than a focus solely on the economic and SRH outcomes would suggest.

Synergistic relationship

While the overall impact of the program appears both large and robust, the evidence of a synergistic effect of combining the two arms in a way where they mutually reinforce each other and potentially result in improved economic and health outcomes is much less substantial. If a synergistic relationship were present, the expectation would be to see significantly greater change in the combined arm when compared to either the VSLA arm (when examining economic outcomes) or the SRH arm (when comparing SRH outcomes). While the combined arm does show significant changes in both core domains, there is no indication of the hypothesized synergistic relationship. Rather, the level of change in the combined arm typically is roughly between that experienced by the two other intervention arms. This is particularly clear for the analyses of the impact of the program on SRH outcomes.

While these findings do not find that the combination approach results in a synergistic process, they do suggest that girls in the combined arm may have had the greatest overall benefits of either of the three arms, simply because they enjoyed similar improvements to the VSLA arm in the economic outcomes and similar improvements to the SRH arm when examining the SRH outcomes. As some of the results suggest, particularly around savings and productive use of savings, these girls may experience greater improvements in economic outcomes than those in the SRH arm and greater SRH improvements than those in the VLSA arm. While the results are not entirely conclusive on this front, mainly due to the lack of clear differences between the intervention arms in terms of economic outcomes, this would suggest that combined programming be a recommended course of action for programs such as TESFA in the future.

Annex 1 : List of core indicators used for evaluation

Economic Activity

Worked for money or in-kind payment in past year
Participation in specific income generating activities in past year
 Participated in petty trade
 Participated in selling vegetables
 Participated in raising poultry
 Participated in breeding livestock
 Participated in agricultural work
 Participated in other income generating activity
Average income (*birr*) from work

Savings and loans

Has savings of her own
Has ever taken a loan of her own
Intended use of savings (among those who had savings)
Use of last loan taken (among those who had loans)

Basic financial skills

Ability to calculate interest
Ability to describe process of calculating profit

Control over economic activities

Involved in decisions about working
Feelings about degree of control over earnings (those with earnings)
Decisions over use of earnings (those with earnings)
Involved in decisions about use of savings (those with savings)
Involved in decisions about use of prior loan (those who ever took a loan)
Whether she was expected to share loans with anyone
Whether discussed what to spend money on with husband in past year

Sexual and Reproductive Health

Changes in knowledge

Able to identify traditional methods as least effective method for preventing pregnancy
Feels confident that they could correctly use a condom
Knowledge about sexually transmitted diseases (STDs)
 Knows about STDs
 Able to correctly identify any symptoms of STDs
 Does *not* know of any way to avoid STDs
 Able to correctly identify condoms or abstinence as most effective protection against STDs

Answered 'Don't know' when asked what the most effective method for protecting against STDs is
Able to correctly identify the number of recommended antenatal visits

Attitudes towards contraception

Husband favors idea of contraception
Perceived benefits of using contraception
Cited mother or child health as main reasons for using contraception

Changes in SRH behavior

Use of modern family planning methods
Visiting health clinic to obtain family planning
Has ever had an HIV test

Decision-making and communication around SRH

Discusses family planning with husband
Feels her opinion is taken into account for family planning decisions
Girl involved in decision about using contraception
Girl involved in decision about having a child
Experience with sexual violence within last 12 months

Social Impacts

Spousal communication

Ever discussed the following topics with husband in past year
Things that happened to her during the day
Her worries or feelings
Her hopes for the future
What to spend money on
Things that happen in the community
When to have children
Whether to use family planning
Where to get family planning methods
Additive communication scale

Gender-based violence

Experience in past year with following types of violence:
Psychological violence
Threats of physical or sexual harm
Physical violence
Sexual violence
Experienced *any* form of violence

Mental health

Reported experience in past year with following symptoms of mental health:

Do you sleep badly?

Do you feel nervous, tense or worried?

Do you feel unhappy

Do you find it difficult to enjoy your daily activities?

Do you feel you are a worthless person?

Additive scale of mental health

Does girl feel life will be much better in one years time?

Annex 2: Differences between baseline respondents successfully matched at endline and those lost to followup/attrition

	<i>SRH-Only</i>			<i>VSLA-Only</i>			<i>Combined</i>			<i>Control</i>		
	Retained	Lost	p-value	Retained	Lost	p-value	Retained	Lost	p-value	Retained	Lost	p-value
Average years in school	3.76	3.79		3.33	4.34	**	3.82	4.11		3.02	3.18	
Average age	16.4	16.5		16.7	16.7		16.6	16.8		16.8	17.0	*
%age married	0.82	0.67	***	0.86	0.65	***	0.84	0.67	***	0.87	0.67	***
%age who had worked for pay	0.47	0.47		0.54	0.50		0.47	0.45		0.54	0.50	
%age with personal savings	0.24	0.28		0.21	0.23		0.24	0.24		0.14	0.10	
%age who had ever taken a loan	0.22	0.20		0.27	0.23		0.24	0.16	**	0.18	0.15	
%age currently using modern contraception	0.34	0.31		0.51	0.49		0.49	0.44		0.48	0.47	
%age visited a clinic for family planning	0.37	0.34		0.52	0.53		0.52	0.48		0.50	0.46	
Communication scale with husband	5.73	5.40	*	6.16	5.41	**	6.32	5.91	**	6.46	6.04	

Note: *** denotes a p-value<0.001, ** a p-value<0.05, and * a p-value<0.10