

A Global Desk Review of Financial Education's Contribution to Girls' Economic Empowerment

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TABLE OF CONTENTS

- LIST OF ABBREVIATIONS..... 3**
- EXECUTIVE SUMMARY 4**
- 1.0 BACKGROUND 7**
 - DESCRIPTION OF THE ISSUE..... 7
 - THE NEED FOR ECONOMIC EMPOWERMENT PROGRAMS..... 7
 - FINANCIAL EDUCATION AS A FOUNDATION FOR ECONOMIC EMPOWERMENT 8
 - OBJECTIVES 9
 - RATIONALE FOR A REALIST REVIEW 9
 - THEORY INITIATION 10
- 2.0 METHODOLOGY..... 11**
 - THE REALIST REVIEW METHODOLOGY 11
 - RESEARCH QUESTIONS 11
 - ELECTRONIC BIBLIOGRAPHIC SEARCH 11
 - GREY LITERATURE SEARCH..... 11
 - DATA EXTRACTION 12
 - RELEVANCE, RIGOR, RESULTS 13
 - DATA ANALYSIS AND SYNTHESIS..... 14
 - SEARCH LIMITATIONS..... 14
- 3.0. RESULTS 15**
 - (1) Complementary combination 16
 - Model 1: Financial Education + Microfinance (F + M) 16
 - Model 2: Financial Education + Vocational Training (F + V) 16
 - Model 3: Financial Education + Account/Access (F + A) 16
 - (2) Plural combination (indirectly complementary) 16
 - Model 4: Financial Education + Health Education (F + H) 17
 - Model 5: Financial Education + Social Education (F + S) 17
- 4.0 KEY FINDINGS 18**
 - GEOGRAPHIC REACH..... 18
 - FINANCIAL EDUCATION AS PRIMARY COMPONENT..... 20
 - TYPE OF INTERVENTION MODEL 20
 - OUTCOME MEASURES 20
 - CONTEXTUAL FACTORS..... 22
 - LIMITATIONS..... 26
- 5.0 THEORY OF CHANGE..... 26**
- 6.0 WAY FORWARD..... 31**
- REFERENCES 36**
- APPENDICES 44**
 - APPENDIX 1: PRELIMINARY THEORY OF CHANGE 44
 - APPENDIX 2: SEARCH METHODS TECHNICAL DETAILS 45
 - APPENDIX 3: OVERVIEW OF KEY WORD STINGS USED IN SEARCHED DATABASES 49
 - APPENDIX 4: ELIGIBILITY CRITERIA TO DETERMINE INCLUSION OR EXCLUSION OF IDENTIFIED STUDIES 51
 - APPENDIX 5: INCLUDED STUDIES DETAILS 52
 - APPENDIX 6: SPIDER CHARTS 64
 - APPENDIX 7: COUNTRY MINISTRY WEBLINKS 68

LIST OF ABBREVIATIONS

CCT	Conditional Cash Transfer
CEDAW	Convention on the Elimination of all forms of Discrimination Against Women
CEDPA	Centre for Development and Population Activities
CMO	Context-Mechanism-Outcome
CSFEG	Credit Suisse Financial Education for Girls program
DFID	Department for International Development
ERIC	Education Resources Information Centre
HDI	Human Development Index
ICRW	International Centre for Research on Women
ILO	International Labour Organization
INFE	International Network on Financial Education
INFLIBNET	Information and Library Network Centre
JSTOR	Journal Storage
MDGs	Millennium Development Goals
OECD	Organisation for Economic Co-operation and Development
SIGI	Social Institutions and Gender Index
SRHR	Sexual and Reproductive Health Rights
SSRN	Social Sciences Citation Index/Social Science Research Network
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WEF	World Economic Forum

EXECUTIVE SUMMARY

This global review is part of the thought leadership component of the Credit Suisse Financial Education for Girls (CSFEG) program. The purpose of this work is to provide recommendations regarding the design, implementation and research on programs for adolescent girls aged 10 to 18 that aim to contribute to their economic empowerment by containing a financial education component.

Economic empowerment can be defined as the process by which a person or group enhances their economic wellbeing through the maximization of economic opportunities, the knowledge and skills to take advantage of those opportunities, and the necessary power and voice to determine how to do so through influence over one's own individual, social, and political context. This includes access to, knowledge of, and power over one's economic livelihoods, assets, and skills (IDRC, 2013; Kabeer, 2012). A person is economically empowered when he or she has both the ability to succeed and advance financially and the power to make and act on economic decisions (Golla, Malhotra, Nanda, & Mehra, 2011).

Presented here are the findings from research into selected, highlighting key financial education program models. This can be used for development practitioners and policy makers to inform the selection, modification, creation, and/or evaluation of programs with the goal of contributing to the economic empowerment of young women. The research will also be useful to direct the areas where further research can be undertaken within the CSFEG program.

Adolescent girls typically lack access to financial capital and have more limited opportunities to gain the education, knowledge, and skills that can lead to economic advancement (Fewer et al, 2013). Programs and interventions that seek to contribute to economic empowerment can be a critical lever for change in adolescent girls' lives, helping them to gain financial independence, establish good saving habits, and improve their future prospects for participation in the labor force. Additional potential benefits to girls are more mobility, increased confidence, strengthened social networks, and better health outcomes. Increasing women's access to financial literacy¹ training and services; improving their incomes through employment and better working conditions; and supporting land reform and inheritance rights to secure women's rights to own and use property are key to ensuring that women have control over their lives (DFID, 2013).

This review focuses on adolescent girls' economic empowerment through interventions with the potential to effect a transformational change in girls' lives by enhancing their decision-making power, agency, and knowledge of available resources. It centers solely on those interventions that contain a component on financial education and adopts a realist methodology to identify the intervention models that appear to be best-suited for contributing to the economic empowerment of adolescent girls. Realist reviews deliver illumination rather than generalizable truths, and contextual fine-tuning rather than standardization. They profess 'theory driven synthesis' and deconstruct an intervention into its component theories (Pawson et al, 2005). This piece of work focuses on interventions that aim at economic empowerment routed through financial education in order to highlight both good practices and knowledge gaps in the field.

The purpose of this review is to examine to what degree, how, and in what contexts the inclusion of financial education in interventions targeted at adolescent girls, can contribute to their economic empowerment. In order to achieve this, we will:

- Define the models of interventions seeking to economically empower young women;
- Identify the models most effective in achieving economic empowerment through financial

¹ In this study "financial literacy" is used in the broad sense covering knowledge, attitudes, and behavior.

education;

- Map the outcomes that are deemed most important for young women's financial empowerment;
- Identify the contextual factors at all ecological levels that influence the effectiveness of the models;
- Select or define a theory of change which may inform the work of other organizations and their economic empowerment programs, including those participating in the CSFEG program (namely; Brazil, China, India and Rwanda).²

After a structured and grey literature search, 12 studies that met the inclusion criteria were selected. Study selection was conducted in two stages; in the first stage studies (n=35) that aimed at economic empowerment but did not necessarily have a component on financial education, were included. In the second stage, studies (n=12) that met the inclusion criteria (i.e. economic empowerment through financial education) were further examined in detail. Following analysis of the 12 included studies, five different types of intervention models, with financial education as an essential component, were identified. Outcome measures from the included studies were then mapped in the light of corresponding contextual factors and the most effective intervention model for promoting financial literacy among adolescent girls identified. Finally, a six-level ecological framework was used to map out intervention components, outcome measures and contextual factors, so as to better appreciate the influences and interactions of different factors on economic empowerment within adolescent girls' broader environments.

Key findings reveal that including social education alongside financial literacy seems to be a useful and common intervention combination. Social education may include life skill, interpersonal networking, peer relationships, communication, and personal development. Health education also was an equally popular intervention component in several studies.

Four key research gaps emerged: one was a lack of research in regional contexts outside of Africa and South/Central Asia. Results from the CSFEG program will be the first such evidence to focus explicitly on the contribution of social and financial education programs to the economic empowerment of adolescent girls in Brazil, China, and Rwanda.³ A second research gap identified the need to explicitly evaluate the moderating effect of contextual factors on the effectiveness of financial education. A third research gap indicates the need for future research into outcomes that are understudied: the impact of financial education on the control by adolescent girls of their own assets; long term outcomes; and potential negative outcomes for girls such as engaging in hazardous income generating activities. Finally, additional research into this field could usefully focus on the effect on female economic empowerment of interventions that include adolescent boys, as most of the identified studies and projects focused only on female participants. Previous research on financial education for both boys and girls has not been conducted with a strong focus on gender related outcomes.

We list here other questions that could be addressed through future research into financial education programs, so as to address gaps in the evidence base and contribute to knowledge around economic empowerment for adolescent girls.

² This can be done by comparing/contrasting the theory of change of the CSFEG program with the theory of change developed through this review.

³ Rigorous impact evaluations have been (Brazil and Rwanda) or are being (China) conducted in all of these countries to investigate the impact of social and/or financial education, but none of them have as strong of a programmatic and research focus on outcomes for girls such as in the CSFEG program.

General questions that arise from this desk review are:

1. What is the impact of girls' financial education on their economic decision-making agency (for example asset management and control among others)?
2. For which outcomes is there an added value of social education and what is its interaction with financial education, in terms of impact on economic empowerment of adolescent girls? This should focus on aspects of social education that are particularly salient for the specific country context.
3. Are there potential risks associated with girls' acquisition of financial literacy and life skills, and if so, how can we mitigate them? Examples: temptation to engage in negative employment options, leading to exploitation in order to generate more income; increased violence against women by men and boys feeling challenged in their manhood, etc.?
4. What is the added value of adding context specific intervention components alongside financial, social, and life-skills education programs?
5. How do program participants fare long term (in the next five or ten years)?
6. How can case studies of success/ champions/ heroes of young people be used as examples of resilience to motivate others in similar circumstances?
7. How can young boys make 'safe spaces' possible for young women? How can they become comfortable with the idea of working alongside girls and help shape the attitudes of their families too?
8. What are the formal financial inclusion aspects and non-formal financial inclusion aspects that can be included into programs and what are their respective benefits?
9. What age-specific (within adolescence) additional components could be added to existing financial education interventions?

1.0 BACKGROUND

Description of the issue

Adolescent girls are one of the world's most economically vulnerable groups, significantly more so than adult women or adolescent boys. There are over 1.2 billion adolescents worldwide and nearly 90 per cent live in developing countries (UNICEF, 2012b). Globally, 600 million adolescent girls struggle with widespread poverty, limited access to education and health services, and persistent discrimination and violence (United Nations Foundation, 2015). Adolescence is a vital period for preparing for adult roles. This is especially true for girls, for whom education or economic participation in late adolescence can help overcome material, social and cultural barriers to economic gains in adulthood (Morrison & Sabharwal, 2008). The benefits of investing in girls and women are transformational for their own lives and for their families, communities, societies and economies. Contributing towards the empowerment of girls and women has multiplier effects for economic growth and achieving the United Nations Development Goals (DFID, 2011).

Adolescence represents a unique phase of life, comprising a dense web of varied and essential experiences, transitions and acquisition of essential life skills. The evidence on girls' life paths suggests that, in contrast to boys, they have to manage with limited access to information and social networks, fewer capacity-building opportunities, restricted access to community resources (such as schools, playgrounds, recreational centers, market places) and a reduced prospect of benefitting from paid labor (Mensch, Bruce and Greene, 1998). In many contexts, adolescent girls often lack access to financial capital and have more limited opportunities to gain the education, knowledge, and skills that can lead to economic advancement (Fewer et al, 2013). Giving girls greater choice and control over decisions that affect them can help break the cycle of poverty between one generation and the next (World Bank, 2014). Interventions designed to contribute to economic empowerment can be a critical lever for change in adolescent girls' lives, helping them to gain financial independence, establish good saving habits, and improve their future prospects. These outcomes may lead to other personal and social outcomes. For example, financial independence can provide an adolescent girl the agency necessary to make more informed and independent life decisions, such as choices around continued education, marriage, and childbearing.

A lifecycle approach shows that the gains accrued from early childhood care programs (Karoly et al, 2005; Plan International, 2013) can be strengthened by continued support through adolescence so that children develop into healthy, well-adjusted and productive adults (UNICEF, 2014). Sustained investment in empowerment of girls through their growing years is also needed to achieve this.

Empowerment at an individual level equips a person with the right knowledge, skills and attitudes to realize one's true potential; activated through self-agency to achieve social and economic success for oneself and one's family. Economic empowerment can be defined as the process by which a person or group enhances their economic wellbeing through the maximization of economic opportunities, the knowledge and skills to take advantage of those opportunities, and the necessary power and voice to determine how to do so through influence over one's own individual, social, and political context. This includes access to, knowledge of, and power over one's economic livelihoods, assets, and skills (IDRC, 2013; Kabeer, 2012). A woman is economically empowered when she has both the ability to succeed and advance financially and the power to make and act on economic decisions (Golla, Malhotra, Nanda, & Mehra, 2011).

The Need for Economic Empowerment Programs

Economic empowerment is determined by a wide range of factors that shape adolescent girls' lives (Morcos, 2011). Both social empowerment and economic empowerment are part of paving the way for a level playing field for disadvantaged persons and helps them stimulate their full potential to achieve success in life. Supporting access to economic assets for females at an early age increases their chances of moving out of poverty and improves their ability to participate in economic growth in adulthood (Dickson & Bangpan, 2012). A woman is economically empowered when she has both the ability to succeed and advance financially and the power to make and act on economic decisions

(ICRW, 2011). This power is dependent on and is derived from the surrounding social and cultural contexts as well as individual competencies.

Providing access to economic assets (i.e. physical or financial assets) for girls and young women forms a key dimension of poverty alleviation strategies and the economic advancement of women in society (Dickson & Bangpan, 2012). It is therefore critical to investigate interventions that support asset-building in their suite of program components. Interventions to achieve economic empowerment may include additional components to build physical and financial assets, such as focusing on ways to harness social capital and knowledge assets, both of which can support girls and young women to make use of the economic assets being made available to them.

Furthermore, programs that lead to the economic empowerment of women through the development of money management skills are aligned with the current global focus on reducing youth unemployment. Various authors have argued that it seems inconsistent that one of the goals of education is to prepare youth to be employable citizens, but not prepare them adequately to manage the income they earn from that employment (Danes & Haeberman, 2007). Therefore increasing girls' and women's access to financial services and financial literacy training along with the right employment interventions are key to ensuring that they have more control over their lives and their future (DFID, 2013).

Finally, alongside the increased focus on girls' education, countries have become increasingly concerned with the level of financial literacy⁴ of their citizens (Gerardi et al, 2010). This concern was heightened by the financial crisis and the recognition that a lack of financial literacy was one of the factors contributing to ill-informed financial decisions, which in turn, had negative spill-over effects on society (INFE & OECD, 2009; OECD, 2009). Financial education and connected competencies of individuals are thus gaining importance in light of the dynamic, fast developing, globally-connected and complex nature of financial markets (Starcek & Trunk, 2013).

Focus on adolescent girls and economic empowerment is relatively new (ICRW, 2010). In general, greater gender equality in the family, the market, and society, can help shrink poverty and promote growth - both directly, by boosting women's participation in the labor force, and indirectly, through the beneficial effects of women's empowerment on child development outcomes (OECD, 2012). Although girl-centered programs have traditionally focused on promoting girls' education and reproductive health, civil society organizations and funders are now increasingly exploring strategies to promote adolescent girls' economic empowerment too (Fewer et al, 2013).

Financial Education as a Foundation for Economic Empowerment

The improvement of a person's financial literacy is one of several means for securing economic empowerment. It helps build and upgrade savings and investment skills, potentially leading to an improved quality of life. Financial education aims to develop financial literacy. It promotes asset creation and helps girls comprehend the principles of good money management through a heightened awareness of personal financial issues and choices. It develops knowledge, attitudes, behaviors and skills to manage day-to-day expenses, prepares them for life situations, and helps them set their own financial goals and develop realistic strategies to achieve these (Dickson & Bangpan, 2012).

Financial education is steadily being acknowledged as a primary element of economic and financial stability and development (INFE & OECD, 2009). The OECD report (2005) on Improving Financial Literacy argues that in the current globalized world, in the absence of financial education and the resulting low levels of financial literacy, vulnerable individuals and households are more likely to fall prey to indebtedness and bankruptcy (UNICEF, 2012a). Furthermore, the present global economic situation necessitates increased action to ensure that women and girls obtain equal access to economic opportunities and are enabled to contribute equally to the growth and development of their country's economy (UNDP, 2008; UNDP, 2009).

⁴ In this study "financial literacy" is used in the broad sense covering knowledge, attitudes, and behavior.

Financial education is likely to be connected to building precautionary savings (De Bassa Scheresberg, 2013) and the ability to manage better during financial emergencies (Lusardi et al 2011). A systematic review and meta-analysis conducted by O'Prey and Shephard in 2014 on 'Financial Education for Children and Youth' concluded that financial education can be effective in developing financial capabilities of young people. There is mounting evidence (and demand) for financial education for adolescent girls and young women in particular. The downstream contributions of such programs towards the specific goal of economically empowering young women also need to be understood.

An abundant body of literature has highlighted that vulnerable youth in low- and middle-income countries have a pronounced need for financial literacy, as they frequently become early financial actors and take on demanding money-earning and managing responsibilities. Even the poorest youth regularly engage in complex financial activities including earning through small, informal jobs, and engaging in informal borrowing, in order to meet their daily needs (Amin et al, 2010; Rutherford, 2000). Recent studies suggest that if given access to a broad array of quality saving products, the poor are able to save more (Karlan & Morduch, 2010; Collins et al, 2009; Stuart et al, 2011). Thus, it is paramount for financial literacy interventions to be implemented early, to be able to counter structural disadvantages and enable young financial participants to exercise adequate control over their money, particularly in adult-operated financial settings (Ainul et al, 2013).

Objectives

This realist review assesses programs and projects for the economic empowerment of adolescent girls through financial education. The purpose of this review is to examine whether, how and in what contexts, the inclusion of financial education in interventions targeted at adolescent girls can lead to their economic empowerment. In order to achieve this we will:

- Define the models of interventions seeking to economically empower young women;
- Identify the models most effective in achieving economic empowerment through financial education;
- Map the outcomes that are deemed most important for young women's economic empowerment;
- Identify the contextual factors at all ecological levels that influence the effectiveness of the models;
- Select or define a theory of change which may inform the work of other organizations and their economic empowerment programs, including those participating the CSFEG program

Rationale for a Realist Review

A realist review is guided by the question "*What works, for whom, in what circumstances and why?*" (Pawson & Manzano-Santaella, 2012). Complex social interventions call for a layered and multi-pronged review approach for meaningful evaluations. A realist review responds to this need as it offers a pluralistic and flexible means of enquiry that explains (rather than judges) by combining, qualitative with quantitative, formative with summative, and prospective with retrospective elements (Pawson et al, 2005). It synthesizes evidence from diverse sources including scoping reviews, expert consultations, and previous experience to arrive at the "richest picture" possible (Kastner et al, 2011). This is done through an iterative process to initiate and refine a context- and outcome-informed theory of change (Rycroft-Maolne et al, 2012; Avis & Freshwater, 2006).

This review is an attempt to synthesize current evidence, extract the intervention logic and fine-tune the theory of change by mapping the relationship between different components.

Theory Initiation

As a first step, we reviewed existing theories in order to develop a preliminary theory of change to explain how interventions containing financial education contribute to economic empowerment (Brennan et al, 2014). We conducted a relevant literature search and interacted with key stakeholders connected to interventions focused on economic empowerment for adolescent girls. We then compiled emergent explanations with prevalent rationales (Pawson, 2006). The purpose of this exercise was to unpack the preliminary theory of change (Mogre et al, 2014) and explain why and for whom financial education interventions work or do not work within a particular context. This resulted in a narrative synthesis that weaves together the context, mechanism and outcome links with evidence supplied by included studies (Rycroft-Malone et al, 2012). This analysis is presented through text, summary tables, logical frameworks, and models and diagrams.

For this review, the preliminary theory of change proposed postulates that financial education can lead to improvements in adolescent girls' economic circumstances by enabling them to make better financial decisions, develop more assets, and make informed investments (see Appendix 1). This review analyzed global evidence to determine if financial education alone is sufficient to contribute to economic empowerment, or if additional intervention components are needed. Models of best practice have been identified and compared to the CSFEG model that contains both financial education and life-skills education.

The CSFEG baseline study, initiated by Plan International (2015), collected data on self-confidence among students, financial attitudes, knowledge and behavior, completion of senior secondary school, SRHR, career training, conditional cash transfers (CCTs), and safety in schools.

Each of the 4 CSFEG countries has selected its own unique means of promoting financial education and life-skills. The program in Rwanda was designed to concentrate on SRHR education; the program in China focuses on career training and offers CCTs to promote schooling; in India the program is encouraging girls' residential schools to offer classes for future career development and counselling; and Brazil, China and Rwanda have chosen to build boys' and girls' clubs to bring financial and life-skills topics into practice. Common concerns in the four countries highlighted by the study include lower confidence among girls about their future, absence of exposure to a financial education curriculum for teachers and students, an unmet need for structured instruction on financial education and life-skills, and poor knowledge of financial education in general. Other important (non-financial education related) concerns include dropping out of school, gaps in career and vocational training, the need for SRHR education and safety at schools (i.e. concerns about gender based violence) (Plan International, 2015).

2.0 METHODOLOGY

The Realist Review Methodology

The desk review utilized a systemic, and replicable search procedure combined with a realist approach to data analysis for the purpose of informing theory, practice, and research. The search procedure supplemented a traditional systematic search of published literature with purposive sampling, and the inclusion of a diversity of primary studies to contribute to the overall richness of the evidence (Pawson et al, 2005; Mogre et al, 2014). The following research questions were addressed through this process:

Research Questions

Do interventions (from the year 2000 to present), which include a financial education component, lead to proximal outcomes that are purported to contribute to economic empowerment as a long-term impact?

If so, what models of intervention can be identified and which appear to be more or less successful? What contextual factors moderated their success?

Electronic Bibliographic search

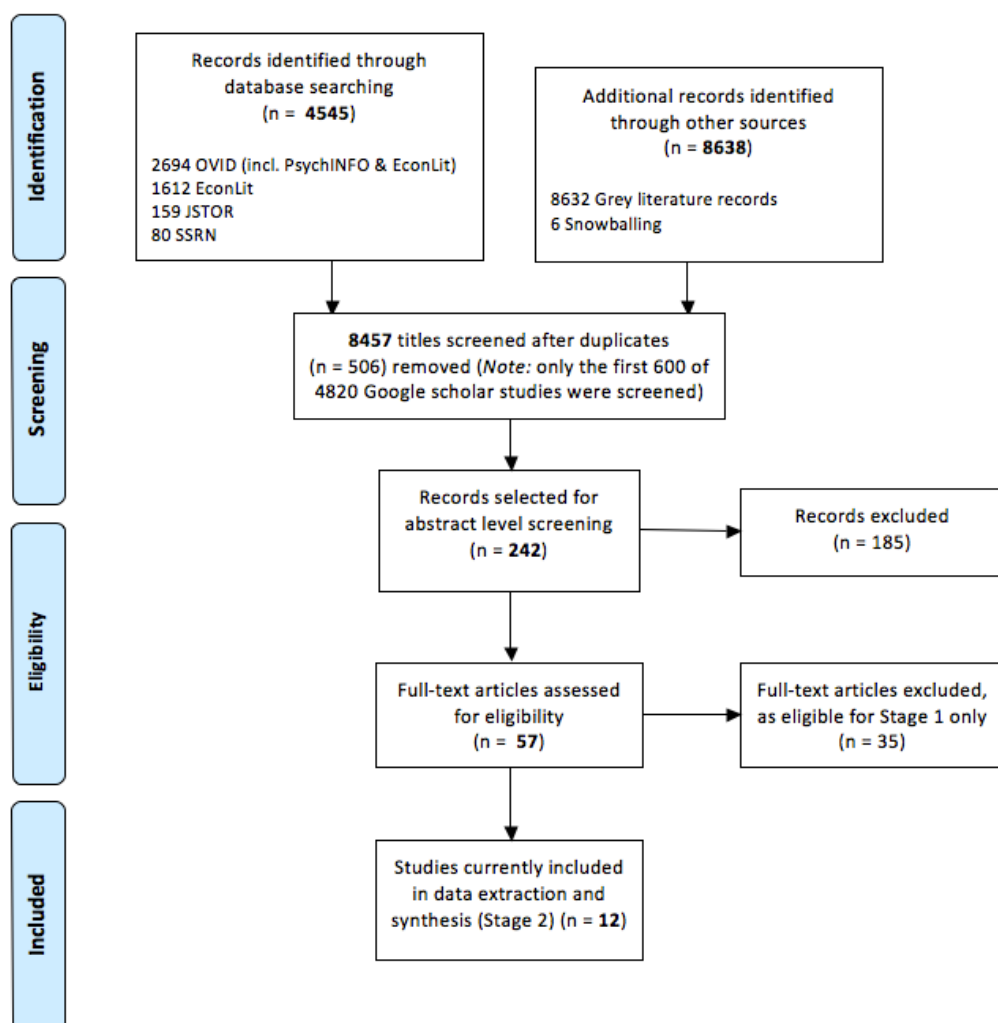
Five bibliographic databases, namely PsychInfo and EconLit (through OVID), ERIC, JSTOR and SSRN were systematically searched to capture studies on financial education from a diverse range of contexts and disciplines. The electronic search yielded 4546 studies for screening (Figure 1).

Grey Literature search

Capturing a wider range of grey literature rather than relying solely on articles in academic journals was important in order to include a larger breadth of relevant empirical studies. Therefore an extensive grey literature search was conducted on the ten most relevant grey literature databases and websites, namely Google Scholar, Eldis, Youth Employment Inventory, 3ie Impact Evaluations, Financial Capability Database, OECD, Ideas Repec, AfricaLib, INFLIBNET and Digital Educational Resource Archive. 8632 studies were identified for screening in this way (Figure 1). As Google scholar was responsible for the largest number of grey-literature hits (56%) and it could sort the hits by relevance, the authors decided to stop screening studies after the first 600 studies. This cut off was chosen because the first 400 hits revealed 97 studies, while the next 200 hits only yielded a further unique 8 studies for screening (50% more hits for only 8% more studies), none of which were included in the final 12 studies. Figure 1 provides a flow chart outlining the number of studies at each step of the selection process.

More details on the search strategy, search strings, data screening, and data extraction can be found in Appendix 2.

Figure 1: Flow diagram showing study selection process



Data Extraction

Two reviewers (JS and MS) performed data extraction on the identified studies. The data extraction was done in 2 stages. In the first stage, 57 studies that aimed at economic empowerment of adolescent girls were identified. Further filtering of those that had financial education as an essential component resulted in a final pool of 12 included studies in the second stage. Data extraction and organization was done in an Excel spreadsheet to capture basic study information, the type of financial education and/or other intervention components (and whether these interventions were primary or secondary components), main intervention logic and a brief summary of the study findings.

Following the complete data extraction of all studies, further analysis of each study's proposed model was carried out against the preliminary theory of change. This included weighing the applicability of the intervention in specific contexts and examining recurring and evolving themes. Where necessary, authors were contacted to seek clarification or to access missing data.

The studies were then sorted based on relevance, rigor and results, which in the context of this review imply the following:

- Relevance:** whether the study covered a particular topic, and whether it addressed the theory under test.
- Rigor:** whether a particular inference drawn by the original researcher has sufficient weight to make a methodologically credible contribution to the test of a particular intervention theory.

- **Results:** how effective or impactful the intervention was in the defined context.

The 12 included studies were sorted based on the above-mentioned parameters on the following scale: high, medium, low, and unknown.

Relevance, Rigor, Results

Figure 2 shows a representation of the quality ranking of all included studies, with 50% of studies scoring 'high' on rigor. Lowest quality scores were found for relevance, with 25% of studies scoring 'low'. Quality assessment of the results of the included studies revealed 'medium' ranking among two thirds of the studies. For a further two thirds of studies, the quality of results was unknown. Out of the 12 studies, 3 'medium to highly' relevant studies scored 'high' on rigor (RCT and pre-and post-test study) and yielded 'medium to high' results (Table 1). It is also important to note that all of these utilized the pluralistic intervention model and contained both financial education and social education while two of the three contained a health education component.

Figure 2: Distribution of quality ranking for relevance, rigor and results among included studies

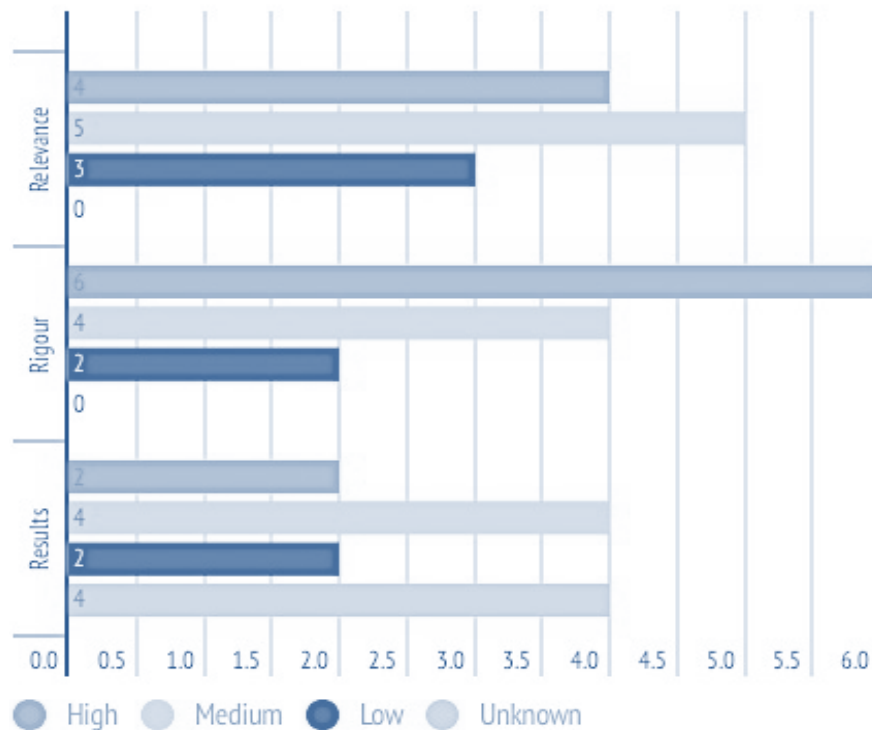


Table 1: Table showing relevance, rigor and results ratings for included studies

Study No.	Relevance	Rigor	Results
1	High	High	Unknown
2	Low	Medium	Medium
3	Medium	High	High
4	High	Low	Medium
5	Medium	High	Unknown
6	High	Low	Low
7	Low	Medium	Low
8	High	High	Medium
9	Medium	Medium	Unknown
10	Medium	High	Unknown
11	Low	Medium	Medium
12	Medium	High	High

Data Analysis and Synthesis

We began by identifying different models for economic empowerment of adolescent girls across the globe. Then we filtered those models and interventions for inclusion of financial education as an essential component. This selection led to the emergence of program theories, and underlying assumptions about how various intervention models may contribute to increased economic empowerment. The next step was to use empirical evidence to populate a theoretical framework. This evidence supported, contradicted or modified the theories accordingly. The review combines theoretical understanding with empirical evidence, and explains the relationship between the *context* in which the intervention was applied, the *mechanisms* by which it worked and the *outcomes*. The final step was to group and synthesize data through thematic analysis and supplement this with additional data on contextual factors that may influence the impact of the intervention.

Search Limitations

This was conducted as a rapid review and therefore imposed time limits on data extraction and analysis: we only considered studies and data published between 2000 and present. This time frame was chosen because the prevalent macroeconomic landscape is known to modulate the pressures and opportunities presenting themselves to people affected by poverty. As such, phases of financial crisis can affect the educational outcomes of adolescent girls (Duryea et al, 2007), including their access to and use of financial education. We attempted to include all relevant studies conducted during the global economic financial boom (2000-2007) as well as during the recession (2008-2009) and post-recession (2009-present) period, in order to capture these impacts.

Additionally, in the last decade, there has been a significant leap in the global usage of Internet and mobile technology by the masses for financial activities and exchange of information (Siau et al, 2001). Therefore, by considering only research published from 2000 onwards, this review attempts to capture the technological advances that have shaped education as well as financial opportunities since the onset of this millennium. Furthermore, since 2000 there has been a substantial increase in the perceived importance of financial education generally and for young women in particular (Danes & Haeberman, 2007; Gerardi et al, 2010; OECD, 2005; UNDP, 2008).

3.0. RESULTS

In stage 1, filtering of the 57 studies yielded 2 programs that sought to contribute to economic empowerment but lacked a financial education component. These two programs were identified by the researchers of this review as those that could benefit from inclusion of an additional intervention: financial education. The two are described in detail in Appendix 5 (table A.5). One study conducted in Zimbabwe incorporated microfinance, health and life skills' components, while the second study from the USA employed group parenting time, life skills and leadership training components.

In stage 2 we analyzed the 12 studies included in this review – those that had financial education as an essential component (Table 2). The remainder of this report, its results and implications, will focus on these studies and the implications of their findings. The studies were conducted between 2004 and the present of which three are on-going until 2017 (Figure 3). The 12 studies were conducted in eight different countries spanning Africa and Central/South Asia (also see Key Findings). Three were located in India, three in Uganda, two in Kenya and one each in Bangladesh, Ethiopia, Liberia, Tajikistan and Zambia. Sample sizes differed considerably, ranging from a relative low of 418 participants to a high of 10,000 participants. One study from India and one from Uganda included both boys and girls, while 10 of the 12 (83%) were conducted with female participants only (see Figure 4).

Figure 3: Included studies by year conducted

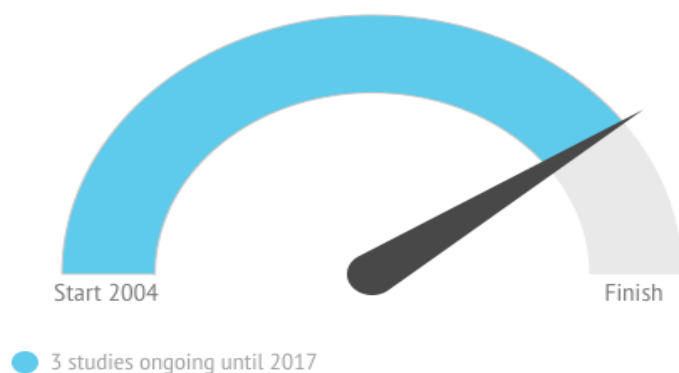


Figure 4: Included studies by gender targeted



The analysis resulted in several program models with a focus around financial education (see discussion below). According to JPAL (2010), interventions for adolescent girls revolve around core areas such as education, health, assets, participation and safety. For the purpose of this review, the focus is on interventions that use financial education as the primary pathway. It is important to note that in all the existing intervention models in the 12 studies, financial education is imparted in conjunction with one or more of the above stated components as a strategy mix. Further categorization of these intervention models using thematic analysis (Barnett and Thomas, 2009) enabled the creation of two larger categories into which the models could be placed: (1) complementary models and (2) pluralistic models.

Among the included studies, there are five types of models within these two categories. Financial education is a fundamental component in all these models. Entrepreneurship training can be part of financial education, but only for older adolescents who will be entering the world of work in three to five years.

Complementary models combine financial education with complementary components that are all explicitly economic/ financial in nature (e.g. access to financial products or vocational training). Pluralistic models are those in which financial education is combined with at least one intervention component that is not financial/economic in nature (e.g. health education).

We further distinguished the intervention models by labelling their constituent intervention components. Across all 12 studies the economic/complementary components were: financial education (F), micro-finance (M), savings account access (A), and vocational training (V). The pluralistic components were: social education (S) and health education (H).

(1) **Complementary combination**

This combination has components that are interrelated, wherein financial education complements other components either directly or as a pathway. The components all belong to the same thematic area. For example, a microfinance initiative might include a component that imparts the fundamentals of finance to enhance the overall understanding of the participants.

Three variations of this complementary classification are provided below:

Model 1: Financial Education + Microfinance (F + M)

The first model refers to interventions that have microfinance as their main component that is strengthened through a financial education component. The basic premise is to impart financial know-how to be able to successfully run microfinance initiatives. Participants get hands-on experience in systematic saving and inculcating financial discipline. Two of the selected studies used microfinance as an intervention component in their models. It is essential to note that although for more than three decades microfinance has been regarded as a helpful means for the poor to improve their economic standing, there have been opposing views in recent evaluations on the utility of small credit in tackling income poverty (Bateman, M. 2011, Chowdhury, A, 2009, Leikem, K, 2012).

Model 2: Financial Education + Vocational Training (F + V)

This second model weaves in financial skill building as a part of a vocational training program. Four studies included vocational training in their component mix. Participants are trained in skills for increasing productivity of informal sector work, securing paid work, negotiating a higher pay or for starting a small enterprise (World Bank, 2007). Skill upgrading and entrepreneurial training can also equip participants to successfully combat social exclusion through better networking (City & Guilds Centre for Skills Development, 2010) – providing that the training is of high quality and in conjunction with the demands of the existing market (King and Palmer, 2007).

Model 3: Financial Education + Account/Access (F + A)

The third model refers to interventions that impart fundamentals of financial education alongside savings so as to help participants start an initiative. Four studies included savings account in their component mix. Savings provide a reliable buffer to low-income households against unpredicted changes in income or expenditure (Paxton, 2002). Savings accounts are a preferred way to safe-keep and grow even small amounts of money: access to a savings account helps build useful lump sums of money, create security to weather tough times and for use in day-to-day expenses (Kendall, 2010).

(2) **Plural combination (indirectly complementary)**

This combination has components that are not directly linked but are blended in a manner that is suitable for the defined target group. Each of the components of this model could function independently as an intervention as these components are from a different thematic area. For example, health in itself is a broad theme and functions independently as an intervention. But for the

economic empowerment of adolescent girls, combining financial education with health education tends to increase the affinity of the participants to the program/intervention.

The two identified models under this plural combination are provided below:

Model 4: Financial Education + Health Education (F + H)

This model refers to interventions that have both health and financial education components. Six studies included health in their component mix. Awareness of reproductive health and/or HIV/AIDS prevention combined with financial education enables adolescent girls to make informed decisions about their age at marriage and their family size, thereby planning and saving for their life's milestones. Adolescent pregnancy leads to damaging consequences for the girl and her family. The problem is acute in most developing countries, excluding China, (Rani, M. & Lule, E. 2004, UNFPA, 2012) and a joint reproductive health education and financial literacy intervention may be a good mix to encourage future positive changes in the lives of vulnerable girls.

Model 5: Financial Education + Social Education (F + S)

This model refers to interventions that have both financial education and social education as components. Six studies included social education in their component mix. Social Education may include aspects of life skills, interpersonal networking, peer relationships, communication, and personal development training programs. It helps instill knowledge and skills in girls about their rights and those of the others and develops self-agency in them (Diaz Soto et al, 2015). Combined with financial education adolescent girls are encouraged to take independent decisions with confidence.

Appendix 5 provides an in-depth overview of the outputs, outcomes and contextual factors for the 12 included studies. Two studies (study 1 and 6) used financial education as a primary component (P) in their interventions. For the majority of studies, life skills' training or health education represented the primary intervention components, with financial education being the secondary component (S). Eleven out of the 12 included studies used pluralistic models, with only one study using a complementary model (study 6).

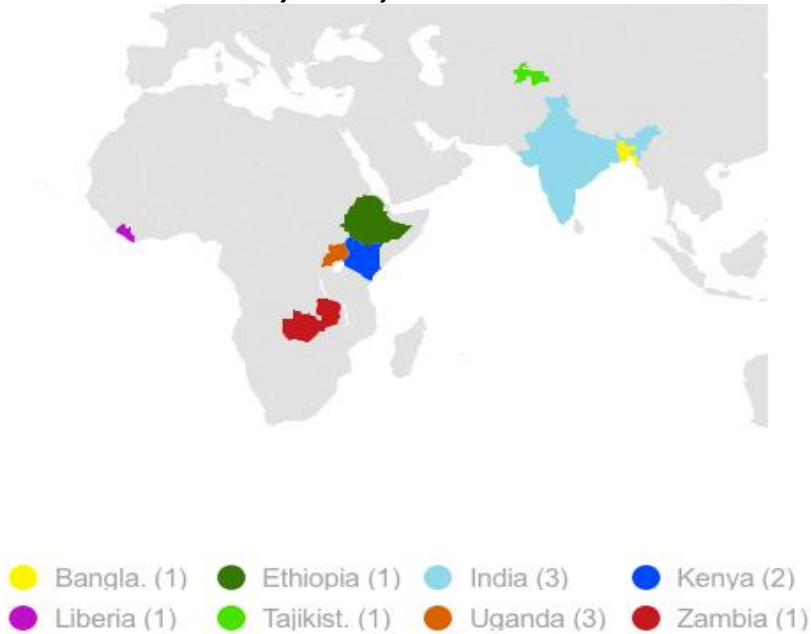
4.0 KEY FINDINGS

The section below gives an overview of the main findings from the review of the 12 studies that were included in Stage 2 (Appendix 5). The aspects that are highlighted in this section leads us to the proposed intervention models and their dynamic interplay with the contextual factors.

Geographic Reach

The majority of selected studies were in Africa (Ethiopia, Kenya, Liberia, Tanzania, and Uganda) followed by Asia (Bangladesh, India, and Tajikistan) (Figure 5). It is important to note that while no geographical or HDI-related filter was used in the search, all relevant interventions were located in developing countries of Africa and Asia. This may be explained by the fact that more than 90% of the world's 1.8 billion youth (10-24 year olds) live in developing countries, making up around 47% of the population in these countries (UNFPA, 2014). Furthermore, the contextual factors suggest that the interventions in the 12 studies were introduced in resource-poor urban and rural pockets. Nevertheless as there are large regional gaps in the evidence base across developing and emerging countries it would be useful to conduct research in additional regions: notably, the Americas, the Middle East, North Africa, and East Asia and the Pacific, and Europe.

Figure 5: Included studies by country conducted



* Note: Study 4 of the included studies (Austrian & Muthengi, 2014) was conducted within two countries, namely Kenya and Uganda.

Table 2: Basic study information for included studies

#	Title	Author	Year	Study Design	Location	Sample Size	Gender	Age Range
1	Adolescent Girls Empowerment Program (AGEP) Zambia	Austrian, K.	2011-2017	RCT (Intervention)	Zambia, Africa	10000	Girls only	10 -19
2	Livelihoods Skill Building Intervention	Kalyanwala et al.	2006	Mixed methods cohort study (Observational)	India, Asia	418	Girls only	13-19
3	Women's Empowerment in Action: Evidence from a Randomized Controlled Trial in Africa	Bandiera, O. et al.	2014	RCT (Intervention)	Uganda, Africa	5966 (T=3964; C=2002)	Girls only	14-20
4	Safe and Smart Savings Products for Vulnerable Adolescent Girls in Kenya and Uganda	Austrian, K. & Muthengi, E.	2013	Case study (Observational)	Kenya, Uganda, Africa	4 programs (2 in each country)	Girls only	10-19
5	Girls Empowered by Microfranchise (GEM)	Ipapa, G. & Mukami, E.	2012-2018	RCT (Intervention)	Kenya, Africa	800 (T=400; C=400)	Girls only	16-19
6	Imagining the Future: Community Perceptions of a Family-Based Economic Empowerment Intervention for AIDS-orphaned adolescents in Uganda	Ismayilova, L. et al.	2012	Qualitative (Observational)	Uganda, Africa	96 (T=50; C=46)	Girls and boys	12-17
7	Integrating Adolescent Livelihood Activities within a Reproductive Health Program for Urban Slum Dwellers in India	Sebastian et al.	2004	Quasi-experimental study, qualitative views study: in-depth interviews (Observational)	India, Asia	3199	Girls and boys	14-19
8	Building a Brighter Future: Experimental Evidence on the Impact of Financial Literacy and Reproductive Health Education for Adolescent Girls in Tajikistan	Jean-Baptiste, R. et al.	2014	Cluster RCT (Intervention)	Tajikistan, Asia	1208 (T=608; C=600)	Girls only	14-18
9	Addressing Comprehensive Needs of Adolescent Girls in India: a Potential for Creating Livelihoods	Nanda, P. et al.	2013	Review of reviews	India, Asia	25 programs	Girls only	10-30
10	Liberia Sisters of Success (SOS)	International Rescue Committee in partnership with EDUCARE, the Planned Parenthood Association of Liberia (PPAL)	2013-2017 (on-going)	RCT (Intervention)	Liberia, Africa	2880	Girls only	12- 15
11	Biruh Tesfa ('Bright Future') Program	Erulkar A. Gebru H., Mekonnen G.	2011	Quasi-experimental (Intervention)	Ethiopia, Africa	Benefitted over 31,000 girls	Girls only	10-19
12	Enhancing Adolescent Financial Capabilities through Financial Education in Bangladesh	Amin S. et al.	2010	Mixed methods cohort study (Observational)	Bangladesh, Asia	591	Girls only	14-19

Financial education as primary component

In two out of the 12 included studies, financial education was a primary component of the intervention. In 10 studies, financial education was part of the secondary mix of components. This mix of diverse components was influenced heavily by the contextual factors that ultimately determined whether financial education was to be a primary or a secondary component. Supplementing financial education with other intervention components in order to achieve girls' economic empowerment appears to be recognized as the right approach. However, there is a clear lack of evidence as to the effectiveness of financial education as a stand-alone intervention in contributing to the economic empowerment of adolescent girls.⁵

Type of intervention model

Of the 12 included studies, 11 favored a 'pluralistic model' and one adopted the 'complementary model'. This indicates that in all the studies it was preferable to have a mix of components rather than a single-component intervention in order to better respond to the multiple knowledge and skills needs of adolescents. The pluralistic model approach may also be favored as a response to corresponding contextual factors.

Outcome measures

Outcome measures serve as an indicator of the achievements of an intervention. The outcome measures that are defined for a particular study are dependent on the objectives of the program, its corresponding components and the context for which that program is designed. They also elucidate how the study and the underlying interventions and models have sought to measure outcomes linked to (in this case) girls' economic empowerment.

Outcome measures by themselves, however, cannot be used to evaluate the overall performance of a program. For a proper evaluation of the effectiveness of development efforts, it is necessary to isolate the impacts of those efforts from the other possible factors (Erickcek, 1996). There are methodological challenges that need to be accounted for and the outcome measures need to be considered in light of challenges regarding attribution and measurement (Lorgelly et al, 2010).

The outcome measures from the 12 included studies have been delineated and categorized in Table 3. They have been grouped under financial, social and health sub-themes. Financial outcome measures are the prime concern of this review, as they relate directly to the goal of economic empowerment for adolescents. The list of financial outcome measures provides an insight into the assessment indicators for economic empowerment. Regarding knowledge, the chosen financial/economic outcome measures focused on knowledge around saving, budgeting, and loans. The behavioral outcomes focused on saving, budgeting, and income generating activities (jobs or enterprises). However, it is notable that only one study focused explicitly on girls' control over their assets (Study #10) and only one focused on the potentially negative side of engaging in hazardous employment (Study #11).

As has already been noted, none of the interventions targeting adolescent girls had a stand-alone financial component. Most interventions employed pluralistic combinations (i.e. social or health components along with a financial component), with the outcome measures defined accordingly. In Figure 7, we map all identified outcome measures at their respective levels, using the framework of Bronfrenbrenner's Ecological System's Theory. The figure shows that financial outcomes in many cases are situated within social and health outcomes, or social and health outcomes become an

⁵ There is additional evidence for the effectiveness of financial education on its own for both genders but not explicitly evaluating adolescent girls' economic empowerment.

intermediate step to successfully arrive at the financial outcomes.

Table 3: Financial, social and health outcome measures identified among 12 included studies

Financial	Social	Health
<ol style="list-style-type: none"> 1. Engage in income generating activities 2. Occupational choice 3. Personal earnings 4. Asset-accumulation 5. Financial knowledge <ul style="list-style-type: none"> <input type="checkbox"/> Saving options in bank <input type="checkbox"/> Term deposit's interest <input type="checkbox"/> Budget component interest <input type="checkbox"/> Knowledge of loan options <input type="checkbox"/> Loan repayment factors <input type="checkbox"/> Know about budgeting 6. Financial attitudes <ul style="list-style-type: none"> <input type="checkbox"/> Positive values on necessity to set and pursue financial goals 7. Financial behaviors <ul style="list-style-type: none"> <input type="checkbox"/> Savings on their own (rather family members) <input type="checkbox"/> Keeping records of expenditure <input type="checkbox"/> Preparation of budget. 	<ol style="list-style-type: none"> 1. Gender <ul style="list-style-type: none"> <input type="checkbox"/> Attitudes and behaviors related to gender 2. Self-esteem 3. Decision-making 4. Positive change in social networks and mobility <ul style="list-style-type: none"> <input type="checkbox"/> Social skills index <input type="checkbox"/> Group membership <input type="checkbox"/> Social networks 5. Sexuality and pregnancy <ul style="list-style-type: none"> <input type="checkbox"/> Early entry into marriage/cohabitation <input type="checkbox"/> Preferred ages of marriage and childbearing <input type="checkbox"/> Sexual risk taking (engagement in sexual activity, unsafe sexual behaviors) 6. Voice and influence <ul style="list-style-type: none"> <input type="checkbox"/> Girl shares her views <input type="checkbox"/> Girl's level of decision-making power within her household of origin <input type="checkbox"/> Romantic relationships <input type="checkbox"/> Peer networks <input type="checkbox"/> Classroom and community 7. Safe spaces & safety net <ul style="list-style-type: none"> <input type="checkbox"/> Knowledge of safe spaces familiarity with safe spaces <input type="checkbox"/> 'safe space' in community to meet female friends <input type="checkbox"/> More likely to have a source from whom to borrow money <input type="checkbox"/> Have an alternative place to stay 8. General literacy <ul style="list-style-type: none"> <input type="checkbox"/> Secondary school completion <input type="checkbox"/> Level of schooling completed by age relative to the age <input type="checkbox"/> In school or out of school <input type="checkbox"/> School attendance <input type="checkbox"/> Grades 	<ol style="list-style-type: none"> 1. Sexual and reproductive health <ul style="list-style-type: none"> <input type="checkbox"/> Knowledge/awareness 2. Sexual behaviors <ul style="list-style-type: none"> <input type="checkbox"/> Unprotected sex <input type="checkbox"/> Age at first cohabitation with a romantic partner <input type="checkbox"/> Number of sexual partners <input type="checkbox"/> Knowledge and use of contraception 3. Pregnancy <ul style="list-style-type: none"> <input type="checkbox"/> Age at first pregnancy <input type="checkbox"/> Age at birth of first child 4. HIV knowledge and attitudes <ul style="list-style-type: none"> <input type="checkbox"/> Informed about HIV <input type="checkbox"/> To know where to obtain voluntary counselling and testing <input type="checkbox"/> Want to tested/have undergone testing 5. Nutrition status

Contextual Factors

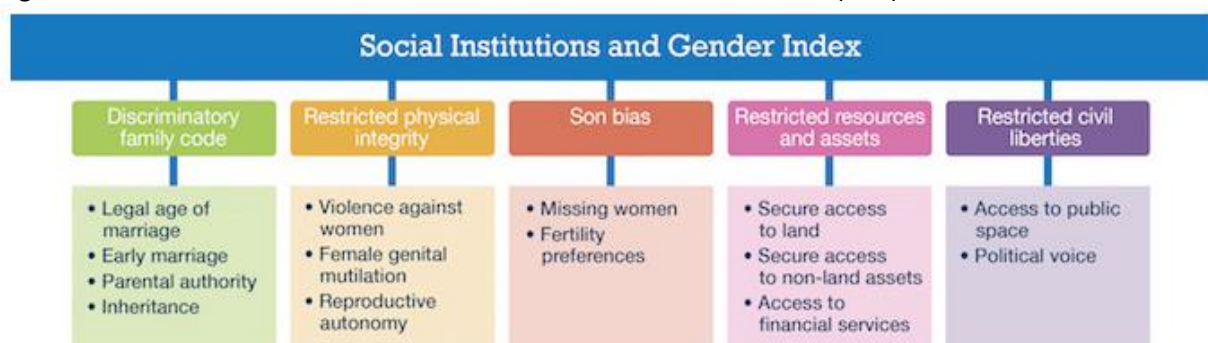
We assembled and listed all the contextual factors mentioned in the studies, after which we categorized them using thematic analysis. Five thematic groups of factors emerged: educational, health, socio-cultural, economic and programmatic. All contextual factors were organized (Table 4) under these themes. Several contextual factors spanned across multiple factorial groups, with particular overlap between health and socio-economic factors.

The contextual factors most likely to affect the choice of the component mix of financial education interventions for girls (in the selected studies' countries) were then compiled, and matched to the broad subheads of reproductive health, employment and financial services, and policy environment. All indicators were analyzed through a gender lens.

The corresponding tables (5&6) were created from the Global Gender Gap Index of the World Economic Forum (WEF), the Social Institutions and Gender Index (SIGI) of the OECD's Development Centre and the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW).

The Global Gender Gap Index analyses national gender gaps on economic, political, education and health criteria, and ranks countries in descending order of gender equality (Figure 6). A higher rank is indicative of a lower gender gap. For example, the country ranking 1 has the smallest gender gap while the one ranking 142 has the largest gender gap to bridge. SIGI measures discrimination against women in social institutions that trap them in a cycle of poverty and disempowerment. The SIGI classification groups 108 countries into five levels of discrimination in social institutions: very low, low, medium, high and very high. Countries with high to very high SIGI classification are defined by high to very high levels of discrimination against girls across legal frameworks, customary practices, social norms and social institutions. They are marked by high to very high levels of devaluation of daughters, serious violations of girls' physical integrity, controlled access to public spaces and few asset ownership rights among others (as highlighted in Figure 8).

Figure 6: Overview of the OECD's Social Institutions and Gender Index (SIGI)



Source: SIGI (Social Institutions and Gender Index) by OECD

The Social Institutions and Gender Index for all the CSFEG countries and the countries of the included studies are presented via spider charts in Appendix 6. These spider charts depict each country's SIGI by grouping together the five sub-indices of discriminatory family code, restricted physical integrity, son bias, restricted resources, and assets and restricted civil liberties. These charts can serve as an easy reference to compare the broad contexts of any two given countries.

Tables 5 and 6 provide an overview of the indicators for contextual factors among the twelve included studies and the four CSFEG countries, respectively. Marriage and childbearing form two crucial defining points in the lifespan of women. Early marriage and pregnancy are associated with higher maternal mortality rates, gender-based violence and stifled decision-making power within the family (Chronic

Poverty Research Centre, 2010). Contrary to this, preventing adolescent pregnancies and investing in girls' education, health and rights generate long-lasting positive effects in other aspects of adolescent girl's lives (UNFPA, 2012). Therefore, in cross-country analysis, higher adolescent fertility rates and early marriage are indicative of a bigger gender gap and correspond to a poor score for the country.

The presence of young women who are active in the world of paid work is an indication of economic empowerment: their access to credit, their share in the secondary and tertiary sectors and access to and use of savings' accounts and other investment instruments are some of the key indicators of women's status in a country. Limited access to financial and natural resources tends to reduce decision-making power of women at household level, exposes their families to food insecurity and makes them more susceptible to poverty (OECD Development Centre, 2015).

Sustained political will is the backbone of progressive policies that impact the lives of young women and children. Whether or not a government has a dedicated department to address the development needs of women and youth is a manifestation of its said political will. A progressive policy environment moderates the effect of grassroots interventions and provides a multiplier effect. The range of favorable policies could include affirmative recruitment, maternity and paternity leave, and active promotion of women's participation in economic life (WEF, 2014). This is measured through 1) a CEDAW ratification and 2) the existence of a ministry dedicated to women/youth, but there was no variation between all the above-mentioned countries as they have all ratified CEDAW and a relevant ministry (see Appendix 7).

Contextual factors act as moderators and showcase the existing social, economic, political and cultural conditions in which interventions operate. These moderators influence the direction and strength of the intervention's outcomes (Baron and Kenny, 1986; Kraemer et al., 2002).

For example, if child marriage and asset ownership by men are prevalent norms in an intervention setting, then it is likely for young women to have limited opportunities for saving and paid work owing to early marriage and childbirth. In such a scenario, it would then perhaps be more prudent for a financial education intervention to insert a component on reproductive health, and social education than it would be for a similar intervention in a social setting that encourages marriage after attaining age of maturity and equal asset ownership by women.

Table 4: Contextual factors identified among included studies organized into five thematic groups

Educational Factors	Health Factors	Socio-cultural Factors	Economic Factors	Programmatic Factors
Parental level of education (level of mother vs. father) (3 studies)	Childbearing and number of dependents (5 studies)		Economic vulnerability due to low family income (5 studies)	Differential programming (targeting specific needs of girl's based on e.g. age, caste, education levels, marital status, urban or rural setting) (4 studies)
Access to technical and vocational skills training (2 studies)	HIV and other sexually transmitted diseases (3 studies)	Marriage in adolescence and marital status (i.e. married, divorced, widowed) (5 studies)	Participation in home-based (unpaid) work (2 studies)	Gender lens and response to girl's practical needs (e.g. structural inequalities incl. restricted mobility, paucity of time, safety concerns, lack of resources) (2 studies)
Level of schooling completed and literacy (1 study)	Risk of gender based violence (3 studies)		Ineptness at young age and lack of savings (2 studies)	Effective pedagogical teaching techniques (incl. strong and trusting mentor-mentee relationship) (2 studies)
Access to soft/ life skills training (1 study)	Risk of sexual harassment (1 study)	Lack of control of own income (2 studies)		Community buy-in (building rapport with parents and family members) (1 study)
Cultural hierarchy in schools (formal teacher-student and peer) (1 study)	Limited control over one's body (1 study)		High youth unemployment (1 study)	
Limited knowledge of reproductive health (1 study)		Access to safe spaces (platforms where girls feel comfortable and access collective learning) (4 studies)		
Household amenities (flush toilet, cement roof, piped water, lighting, separate room for cooking) (1 study)	Lack of access to healthcare (1 study)	Gender roles and decision making power within the household (i.e. recognition of girl's value and acceptability of wage labor) (3 studies)	Access to financial institution for saving or loans (1 study)	
		Restricted mobility (e.g. ability to access savings accounts and safe spaces unattended, often due to social norms of chastity) (2 studies)		
		Social isolation (2 studies)		
		Living arrangements (multi-generational vs. living with both parents vs. one parent vs. neither or orphaned) (2 studies)		

Table 5: Indicators of four contextual factors identified among included studies organized by country

Contextual Factors		Gender		Reproductive Health		Employment and Financial Services			Policy Environment	
Corresponding Indicator	Social Institutions and Gender Index	Gender Gap Index	Adolescent (15-19 years); Fertility Rate (birth per 1000 girls)	Early Marriage - % of Women (15-19 years)	% of Women in Non-Agricultural Employment	% of Women/Men with Account at Formal Financial Institution	Women's Access to Credit (1= worst score, 0=best score)	Ratified CEDAW (1 =yes, 0=no)	Women/ Youth Development Ministry (1=yes, 0=no)	
Study No.	Country									
1	Zambia	0.4489 (Very High)	119	125.4	27	22	23,19	0.5	1	1
2	India	0.265(High)	114	32.8	28	19	26,44	0.5	1	1
3	Uganda	0.2163(Medium)	88	126.6	22	35	15,26	1	1	1
4	Kenya	0.2157(Medium)	37	93.6	20	32	39,46	0.5	1	1
5	Kenya	0.2157(Medium)	37	93.6	20	32	39,46	0.5	1	1
6	Uganda	0.2163(Medium)	88	126.6	22	35	15,26	1	1	1
7	India	0.265(High)	114	32.8	28	19	26,44	0.5	1	1
8	Tajikistan	0.1393(Medium)	102	42.8	14	29	2,3	0.5	1	1
9	India	0.265(High)	114	32.8	28	19	26,44	0.5	1	1
10	Liberia	0.3828(Very High)	111	117.4	20	24	15,23	0	1	1
11	Ethiopia	0.245(High)	127	78.4	27	42	Not Reported	1	1	1
12	Bangladesh	0.39 (Very High)	68	80.6	48	18	35,44	0.5	1	1

Table 6: Indicators of four contextual factors identified among the four CSFEG countries

Contextual Factors		Gender		Reproductive Health		Employment and Financial Services			Policy Environment	
Corresponding Indicator	Social Institutions and Gender Index	Gender Gap Index (ranking out of 142)	Adolescent (15-19 years); Fertility Rate (birth per 1000 girls)	Early Marriage - % of Women (15-19 years)	% of Women in Non-Agricultural Employment	% of Women/Men with an Account at a Formal Financial Institution	Women's Access to Credit (1= worst score, 0=best score)	Ratified CEDAW (1=yes, 0=no)	Women/Youth Development Ministry (1 =yes, 0=no)	
Country										
Brazil	0.0458 (Low)	71	70.8	17	47	51,61	0.5	1	1	
China	0.131(Medium)	87	8.6	1	39	60,68	0.5	1	1	
India	0.265(High)	114	32.8	28	19	26,44	0.5	1	1	
Rwanda	0.1339(Medium)	7	33.6	3	33	28,38	0.5	1	1	

Limitations

This review was intended to be a realist review in order to cover as many aspects as possible to arrive at the proposed intervention models after a thorough analysis. However, it is essential to underline its limitations before drawing final conclusions regarding the implications of the results. The limitations of this review are expected to form a realistic backdrop for subsequent interpretation of results.

- For the purposes of this study, adolescents were defined as children in the age group of 10-18 years. It is important to note that this is a wide age range and that there are considerable variations within. Therefore the eligibility criteria for our research required that in order for a study to be included, at least 50% of the target group had to be within the defined age range.
- The interventions that were identified through this review projected outcomes that are more of an intermediate step for economic empowerment. The programs under study might still be successful in achieving their defined outcomes; but long term longitudinal or cohort studies will be required in order to assess the actual impact on economic empowerment.
- The focus of this review was to identify and analyze the theory of change and program models for different interventions aiming for economic empowerment of adolescent girls. However, this review did not study, compare nor analyze the effect size of included studies.
- Some included studies were too context-specific and hence their program model may not be replicable in other contexts, especially without any major adaptation.
- Out of 12 included studies, two key studies (RCTs) are still ongoing; therefore it is not possible to comment on their success or failure in terms of the proposed program models.
- The only CSFEG country that featured in the 12 included studies was India. There was no study from the other three countries that qualified for inclusion in this review. The contexts of the countries from the included countries are likely to be very different from those of the other three CSFEG countries. Therefore, while looking at the program models it will be important to account for the cultural differences and moderators within each country and intervention setting.

5.0 THEORY OF CHANGE

The following section provides an overview of the Theory of Change for programs that contain financial education with the goal of contributing to the economic empowerment of adolescent girls. The preliminary Theory of Change illustrated the contextual factors that moderate program impact on outcomes, at each ecological level. The revised Theory of Change, based on this review, provides a graphic representation of the most effective program model identified in this review. Outcomes are grouped according to the three core components of the most effective intervention model: namely economic (or financial), social, and health related.

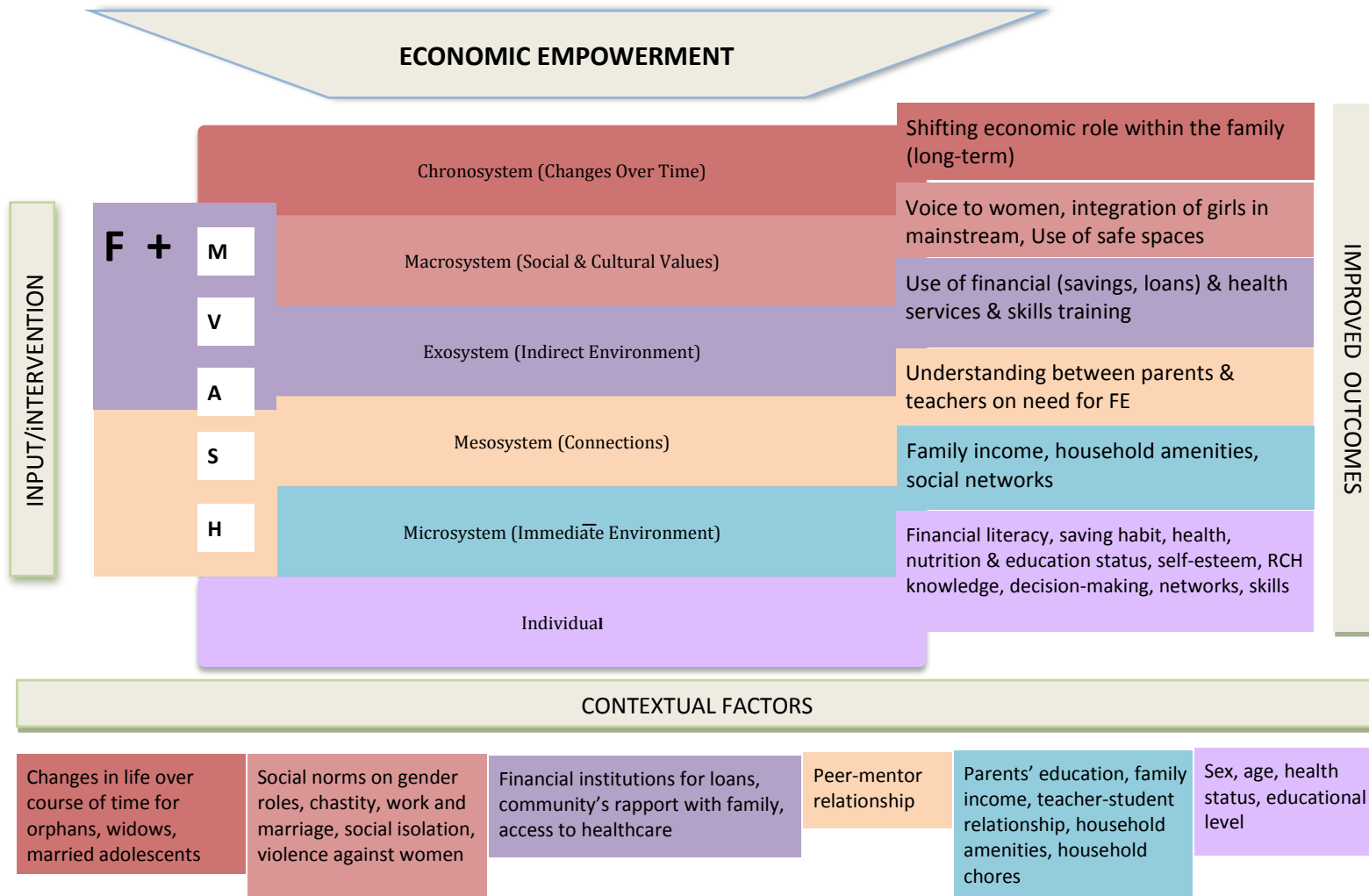
The majority of the studies focused on social and health components along with financial education for adolescent girls. The inclusion of these specific components is determined by the target group (adolescent girls): adolescent girls who are healthy and well integrated into the community are likely to be better equipped to realize their goals as mature adults and become empowered. If other personal competencies are strengthened along with financial education, the benefits will accrue over time, leaving a lasting impact. Financial education by itself will not suffice; in order to use their learning, a holistic approach needs to be adopted. In order to improve their earning potential, adolescent girls need to acquire certain skills so that they can function in the marketplace. Social education can be a central component in equipping young women with the confidence to put financial skills acquired into action.

But interventions with outcome measures such as skill development might not necessarily lead to economic empowerment as there are other factors from the larger ecosystem at play. At the same

time, it is interesting to note that many studies focus on particular economic behaviors, namely, saving, budgeting, and employment. While this may indicate that these short-term indicators are good proxies of changes that should contribute to economic empowerment, they might also be insufficient. In fact most studies included supplement personal, social, and health related interventions.

Financial education and skill training programs to help adolescent girls enter future gainful employment can be powerful transformative agents for empowerment: by enhancing their individual economic power, their capabilities and self-belief are also strengthened. But many youth employment programs in developing countries are limited to vocational training. An alternative approach would be one that simultaneously addresses multiple constraints that limit young women's economic participation, such as lack of technical job skills, and safe spaces or mobility outside the home, or reproductive health issues (Katz, 2008; Mensch et al, 2004). The choice between minimalist and comprehensive programs depends on the social, economic and institutional context in which the program is to be implemented (Katz, 2008).

Figure 7: Ecological Systems Theory derived from analysis of twelve included studies



In Figure 7 we use Bronfenbrenner's Ecological Systems Theory to explain how the inherent qualities of an individual and the characteristics of the external environment in which they find themselves influence how they will grow and develop (Krishnan, 2010). The Ecological Systems Approach organizes contexts of development into five interlocked levels of external influence. The levels are categorized from the most intimate, individual level (microsystem) to the broadest (chronosystem). The five levels - represented in Figure 7 with the elliptical structures - are:

1. Microsystem: the most immediate environment of an individual;
2. Mesosystem: the result of interaction between different microsystems that impact an individual;
3. Exosystem: the linkages that may exist between two or more settings that may impact an individual indirectly;
4. Macrosystem: the largest and most distant collection of people and places to an individual that still exercises significant influence on an individual;
5. Chronosystem: the useful dimension of time, which demonstrates the influence of the change and constancy in an individual's environment.

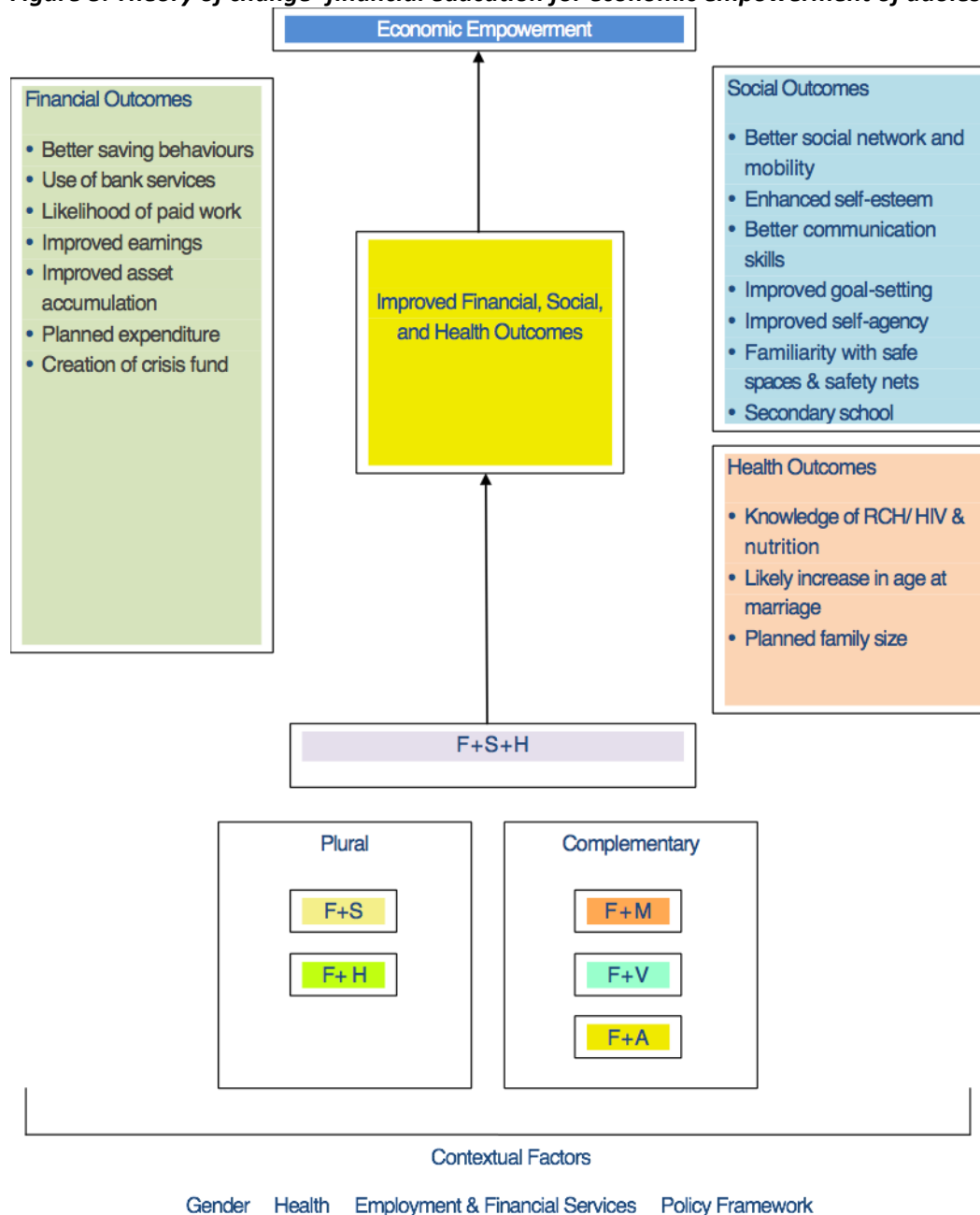
This review has attempted to situate the results of the analysis of included studies in the ecological systems framework. As illustrated in Figure 7, intervention components are listed on the left and the outcome measures on the right. The different outcome measures correspond to different ecological levels, which are depicted by color-coding. Similarly the identified contextual factors shown at the bottom of the figure have been color-coded to link with the corresponding ecological level in the system. This diagram presents an overview of the interaction of different aspects of implementation of interventions seeking to impact girls' economic empowerment

Many programs utilize an ecological systems approach based on the understanding that interventions targeted only at one level are unlikely to bring about effective and sustainable change: life-skills education, pre-employment competencies, financial literacy and career guidance that support youth in becoming productive members of social networks, influencing decisions in their communities and pursuing livelihoods of their choice (McLaughlin, 2010) are all important components for achieving economic empowerment.

No single program can address all of the factors that contribute to women's economic empowerment. Most programs address primary concerns through specific interventions. Nonetheless, situating this work within a broader framework of economic empowerment is essential to arrive at the desired outcome (Golla et al, 2011). Other aspects also need to be taken into consideration during implementation of an intervention. For example, a concern that was highlighted in one of the studies is the variation in experience of sexual harassment and violence. Using only one type of intervention, such as providing a savings account on its own, could potentially increase a girl's vulnerability and therefore must be done within the context of a holistic asset-building program (Austrian & Wambugu, 2009).

From the analysis, we see that all programs use a multi-component mix in the interventions. All interventions have at least two components, while some interventions employ as many as five. The diversity of components also appears to be largely dependent on the context and the specific needs of the target group. The primary component generally addresses the primary concern in light of context and setting, while secondary components address related concerns so as to facilitate the positive acceptance of the main component.

Figure 8: Theory of change- financial education for economic empowerment of adolescent girls



This review has focused on adolescent girls’ economic empowerment through interventions aimed at enhancing their decision-making power, agency, and knowledge of available resources. It centers solely on those interventions that contain a financial education component. Key findings reveal that while including social education alongside financial education is a commonly used intervention combination, health education is an equally popular intervention component combination. As seen in the analysis of contextual factors (pages 23 to 27), most developing countries struggle with weaker indicators for women compared to men. We could expect that additional inputs of social and health education for adolescent girls could better equip them to make informed decisions regarding their future. In other words, financial education plus social education, plus health education seems to offer a fairly balanced component mix for interventions aiming to empower adolescent girls in developing countries. That this is the most effective combination compared to others is evidenced in this piece of work and the corresponding revised theory of change is shown in Figure 8. Interventions developed in line with this theory build physical, mental and social capabilities of adolescents to move towards

attaining economic empowerment in a complex world.

The F+S+H Model, which is primarily a plural model, may be further enriched with allied and complementary components. For example, within financial education, financial literacy may be supplemented with the provision of seed capital for business; and health education may include nutrition, exercise and disease prevention (in addition to standard sexual and reproductive health education). Also, it is essential to create a conducive environment for the intervention to be well-received and successful. One of the ways of building a receptive environment could be through active involvement of parents, so that they can better appreciate their adolescent daughters' concerns and decisions and support them in their educational and economic pursuits.

The key is to shape the intervention in light of the immediate context while acknowledging that no single intervention can on its own serve as a 'magic wand' to economically empower adolescent girls. Economic empowerment is a complex and layered process and each intervention can realistically address only selected aspects at any given time.

A whole host of skills are needed to succeed in the present intricate world. As discussed in the preceding sections, both social education and health education have emerged as equally preferred companions of financial education initiatives across the world. The CSFEG initiative focuses on social education along with financial education, thereby fostering agency, self-confidence and networking skills among adolescent girls. In Rwanda, the CSFEG initiative also contains a health education component. The review provides external evidence that the combination used in CSFEG is likely to be particularly beneficial in settings/ countries with high discrimination against girls and supplies a cushioning effect against institutionalized marginalization of young women (Tables 5 & 6).

6.0 WAY FORWARD

This review provides a global mapping of evaluated programs designed to contribute to the economic empowerment of adolescent girls aged 10 to 18. The most encouraging program model evaluated is one that has a core component focused on enhancing girls' life skills through social education, complemented by financial education. This enables young women to manage and expand their resources in order to reach their broader life goals. The review also shows that this model would be further strengthened by adding sexual and reproductive health components.

Tailoring an intervention to the local context is key to its success. Programs should pay special attention to addressing context-driven vulnerabilities of the target group, especially those contextual factors outlined herein. This is particularly so in the case of population groups with heightened vulnerabilities such as adolescent girls, including those in refugee populations, children with disabilities, orphans, violence-affected girls and child laborers.

While all age-groups tend to benefit from financial education, the utility of it naturally varies according to age group: a 10-year old is a near-child, an 18-year old would qualify as a young adult on the verge of entering the world of paid work. Programs should therefore be tailored appropriately towards the age group. For example, older adolescents are likely to gain more from added focus on business education and skill training.

Our research identified several opportunities for further enquiry: one key gap is a lack of studies in regional contexts outside of Africa and South/Central Asia. The CSFEG program and the evidence generated from it will focus on the contribution of social and financial education programs to the

economic empowerment of adolescent girls in Brazil, China, and Rwanda.⁶

A second research gap identified the need to evaluate the moderating effect of contextual factors on the effectiveness of financial education. There is also a need for future research into outcomes that are understudied, such as the impact of financial education on adolescent girls' control of their own assets, long term outcomes, and potential negative outcomes such as engaging in negative income generating activities.

More research is needed in special contexts, for example, interventions for child refugees battling an uncertain and bleak future, especially in the light of the ongoing distress migration in the Middle East and Europe. Finally, additional research should focus on the effect of also intervening with adolescent boys as most of the identified studies and projects focused only on female participants.

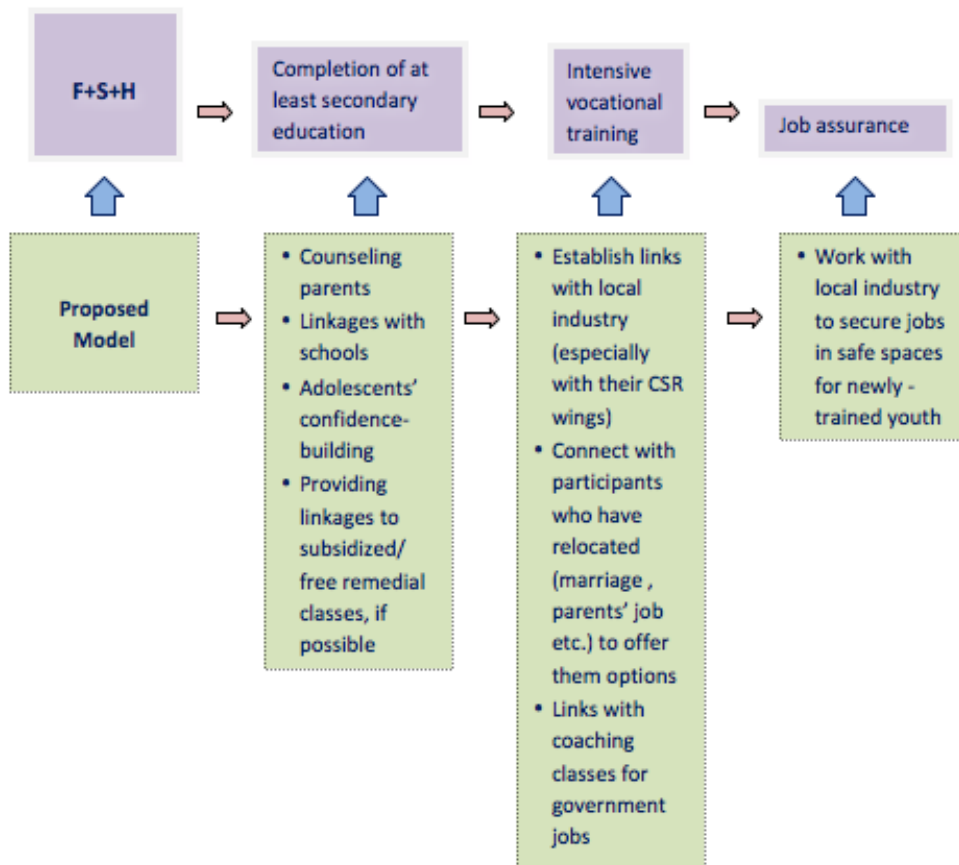
Future programs, policies, and research studies should not only draw on the learning from economic empowerment programs with an explicit gender focus, but also from the growing number of studies and literature on the impact of various models of financial education in general⁷.

It is not feasible to offer highly tailored solutions in financial education and life skills programs because every individual is likely to encounter a unique set of challenging circumstances with varying complexity. However, programs targeting children from deprived and resource-poor settings, who face multiple social and institutional barriers, must offer an as complete cycle of solutions as possible. Such supportive mechanisms are important because it is easy for children in difficult circumstances to get derailed from pursuing educational and work opportunities in the face of familial, social and monetary pressures, rendering previous futile training efforts. Other mechanisms, such as 'connecting the participants to job opportunities' can have a complimentary multiplier effect. Organizing career counseling sessions for adolescents, ensuring completion of secondary and college education, securing parents' approval for young women to secure paid work, connecting them to vocational and remedial classes and building sustainable networks with local industry representatives for future job opportunities could all provide a comprehensive framework for empowerment of young women and men.

⁶ Rigorous impact evaluations have been (Brazil and Rwanda) or are being (China) conducted in all of these countries to investigate the impact of social and/or financial education, but none of them have as strong of a programmatic and research focus on girls as the CSFEG program.

⁷ Aflatoun and its partners have conducted five randomized controlled trials and have worked on over 60 studies in 39 countries into the effects of social and financial education in particular, and are working on finalizing two RCTs in China and Rwanda.

Figure 9: Post-intervention Long-term Follow-up for Girls' Empowerment⁸



Implications for Research

The following research questions to fill the gaps in the evidence base could be addressed in future research and contribute to thought leadership in the field of financial education and life skills programs for the economic empowerment of adolescent girls.

General questions that arise from this desk review are:

1. What is the impact of girls' financial education on their economic decision-making agency (for example asset management and control among others)?
2. For which outcomes is there an added value of social education? What is its interaction with financial education and its outcomes on the economic empowerment of adolescent girls? This should focus on aspects of social education that are particularly salient for the particular country context.
3. Are there potential risks associated with girls' acquisition of increased financial literacy and life skills, and if so, how can we mitigate them? Examples: temptation to engage in negative employment options leading to exploitation in order to generate more income; increased violence against women by men and boys feeling challenged in their manhood, etc.

⁸ In the context of adolescent girls the programs are intermediate steps towards the goal of economic empowerment.

4. Where there are context specific intervention components added alongside or as part of the financial, social, and life-skills education components programs, what is the added value of these interventions vis-à-vis financial education?
5. How do current participants fare longer term (in five or ten years).
6. What is the impact of profiling success/ champions/ heroes from the communities and using these examples to motivate youth so that others in similar circumstances can recognize alternate routes to success?
7. How can adolescent boys make 'safe spaces' possible for adolescent girls? How can they become comfortable with the idea of working alongside girls and help shape the attitudes of their families too?
8. What are the formal and non-formal financial inclusion aspects that can be included in programs and what are their respective benefits?
9. What age-specific (within adolescence) additional components could be added the existing financial education interventions

ABOUT THE PARTNERS

Aflatoun International provides children with the building blocks of life, educating them about their rights, and encouraging them to save their resources and start social and financial micro-enterprises. Through Aflatoun's program of Social & Financial education children are empowered to make a positive change in their lives and in their communities.

www.aflatoun.org

Credit Suisse is a leading global private bank and wealth manager with distinctive investment banking capabilities. We see ourselves as an integral part of society and recognize our responsibilities that go beyond banking. We regard microfinance and education as an effective means of driving inclusive growth and of helping people to help themselves. In 2008 we launched two global initiatives: the Microfinance Capacity Building Initiative and the Global Education Initiative which complement the work of our local foundations and philanthropy committees.

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Plan International UK strives to advance children's rights and equality for girls all over the world. As an independent development and humanitarian charity, we work alongside children, young people, supporters and partners to tackle the root causes of the challenges facing girls and all vulnerable children.

www.plan-uk.org

Advisory Group

The partners in the Financial Education for Girls program (Aflatoun International, Credit Suisse and Plan International) would like to thank the Advisory Group for providing valuable oversight of the scope, methodologies, process and knowledge underpinning the Thought Leadership work in the program.

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Stefanie Plant, IRC; Anna Custers, University of Oxford; Sajeda Amin, Population Council; Jared Penner, Child and Youth Finance International; Alisha Miranda, IG Advisors; Nicole Goldin, NRG Advisory; Claudia Pompa

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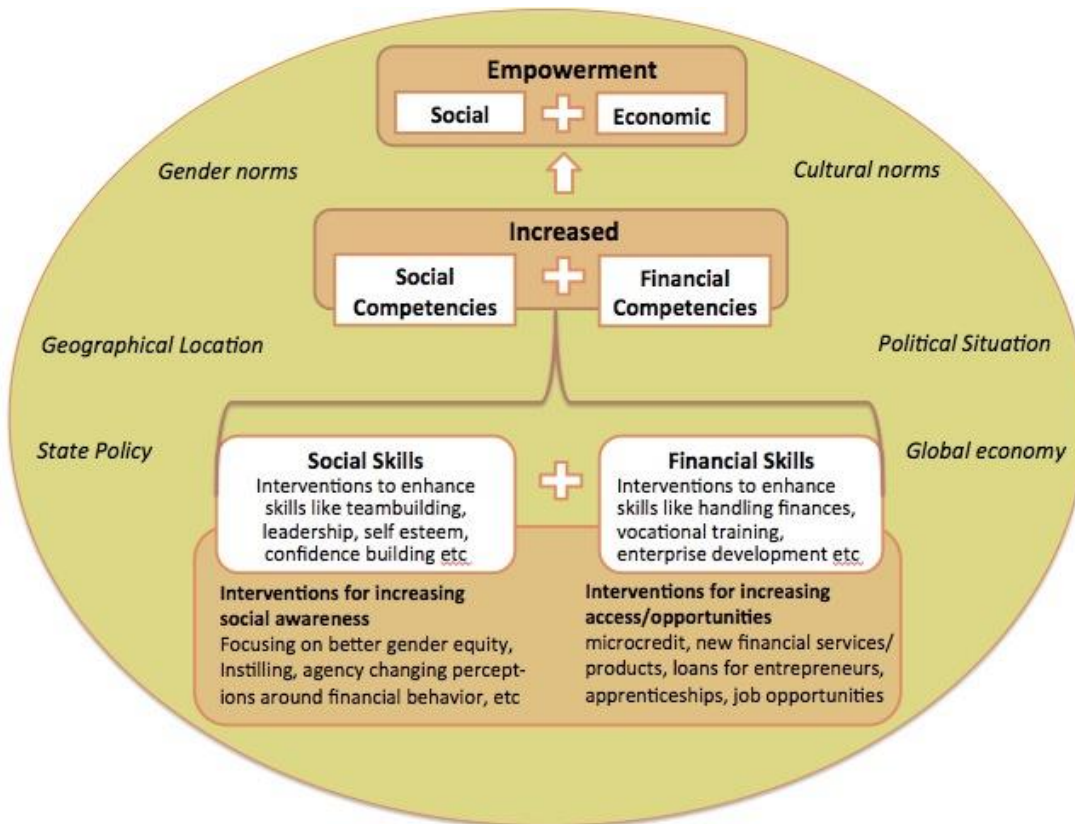
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APPENDICES

Appendix 1: Preliminary Theory of Change

Figure A.1: Theory of Change



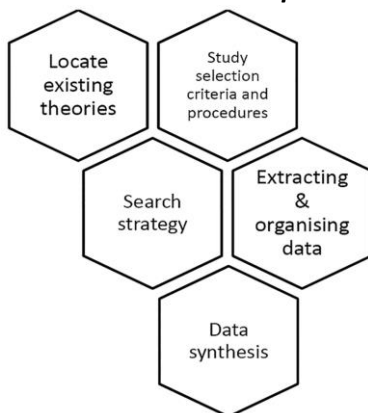
Appendix 2: Search Methods Technical Details

Search Strategy

A comprehensive search strategy involving both structured searches of bibliographic databases as well as grey literature from relevant websites and online databases was conducted to identify a wide range of relevant published and unpublished sources.

Multiple grey-literature search strategies, including deliberate use of purposive and snowball sampling and professional outreach were used to capture studies that do not make it to the known databases. In this process, all decisions regarding which studies are fit for purpose in identifying, testing out or refining the program theories, and when to stop looking once sufficient evidence has been assembled to satisfactorily answer the research question, are essential steps (Pawson et al, 2005). Figure 1 describes how the study design for a realist review can be best represented by a tessellated structure as opposed to linear process steps.

Figure A.2: Pawson's five practical stages of study design (the diagram is tessellated to demonstrate that this is not a linear process)



Source: Brennan et al, 2014.

Preliminary Search

Preliminary reading of key publications on adolescent and adolescent girl financial education informed formation of the research question. Then, a preliminary background search in OVID (including PsychINFO and EconLit) and scoping of grey literature was conducted to gain an overview of the type and range of literature on this topic. Based on this, search terms were developed, tested and refined in OVID, accounting for differences in spelling and testing various search term combinations. Combinations of different terms for each of the three overarching search categories were used:

Population <i>(i.e.. adolescent girls)</i>	AND	Intervention <i>(i.e. financial education)</i>	AND	Outcome <i>(i.e. employment)</i>
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Subsequently, a final key word search string, which included all essential terms while balancing sensitivity and specificity⁹, was developed for OVID (Figure 2). This string served as a basis for all ensuing searches and was tailored to fit the parameters of other structured databases and grey literature platforms searched. An overview of the key word stings used in the databases searched is given in Appendix 2.

⁹ Specific redundancies in the search strings were inserted and retained deliberately to increase specificity and decrease total search returns (decreased sensitivity).

Figure A.3: Overview of the search string developed for OVID

[Population]
(exp girl/) OR (exp teen/) **OR** ((adolescent girl* or adolescent* or teen* or teenage girl* or youth* or young or young adult* or young people or young person or young female* or young woman or young women or young girl* or older girl* or daughter* or student* or female student or young mother* or teenage mother or teenage pregnancy or adolescent pregnancy)
AND
(child* or children*)) **OR** (gender* or feminist or female or girl*)

AND

[Intervention]
(financ* or economic*) **OR** (((financial education or financial literacy or financial literacy program* or financial skills program* or financial training or financial skills training or financial plan* or life skills training or financial right* or financial goal* or financial management or money management) **AND**
(management or plan* or right* or education or account* or earn* or expenditure or entrepreneur*))
AND
((financial empower* or empower* or emancipation* or uplift*) OR (saving* or spend* or plan* or budget* or financial enterprise* or entrepreneurship training* or savings goal* or saving plan* or future financial plan* or handle* money or employability training* or vocational training* microcredit or micro-credit or microloan* or micro-loan* or micro-finance or cash transfer* or cash-transfer* or conditional cash transfer* or conditional-cash-transfer* or voucher* or insurance or physical asset* or employment opportunity* or employment skill* or loan product* or interest rate* or profit* or business development training or business internship* or business apprenticeship* or business training* or business counselling or business mentoring or business support or financial intervention or economic rights or spending decision* or budget* or self reliance or self-reliance or self independence or self-independence or financial stability or economic stability or monetary or monetary incentive)

AND

[Outcome]:
Saving: ((Saving* or reallocation)
AND
Employment: (fund* or earning* or spending* or resource* or financial planning or economic planning or income or salary* or wage*)) OR ((Employ* or financial)
AND
Entrepreneurship: (stability or independent* or goal* or economic)) OR (entrepreneur* or agency* or start-up* or startup* or business* or profit or Self Help Group or SHG or shop* or sell* or organization* or organisation* or set-up*)

Table A.1: Numbers of studies

Identified for screening by database searched through structured and grey literature search before de-duplication

No.	Database/ web platform searched	Number of hits*
<i>Electronic Bibliographic Search</i>		
1+2	OVID (including PsychINFO and EconLit)	2694
3	EconLit	1612
4	SSRN	80
5	JSTOR	159
TOTAL		4545
<i>Grey Literature Source</i>		
1	Google Scholar	4820**
2	Eldis	1489
3	Youth Employment Inventory	229
4	3ie Impact Evaluations	96
5	Financial Capability Database	64
6	OECD	110
7	Ideas Repec	942
8	AfricaLib	284
9	INFLIBNET	12
10	Digital Educational Resource Archive	586
TOTAL		8632
GRAND TOTAL		13177

* All numbers before de-duplication

**Note: only the first 600 studies of the 4820 studies identified through Google scholar were screened.

Searching other resources

In addition to electronic and grey-literature searches, reverse citation searches among the most relevant Stage 1 studies were conducted. The reviewers also selected examples of economic empowerment programs identified through the initial scoping exercise and of case studies featured in Stage 1, to identify further interventions of relevance. A separate Google search for these interventions was then run to locate any available literature. In addition, the reviewers considered references suggested by experts and professionals in the field of livelihoods and financial education for youth. Finally, the reviewers identified international organizations and consortia running financial literacy programs for adolescent girls and accessed their websites for publications e.g. ICRW, Pathfinder International, Plan International, CEDPA, Population Council, EMpower, Youth Economic Opportunities, Youth Employment Network (ILO), and

Save the Children. Through this snowballing technique, six additional studies were identified for inclusion in the review.

Study Selection Criteria and Procedures

Prior to proceeding with the screening of study titles, all studies identified through the structured search were entered into RefWorks and duplicates were removed. Then, all remaining studies (from de-duplicated structured search and grey literature search) were split among the reviewers (JS and MS) and an initial screening for relevance, based on the title and where necessary the abstract, was conducted. The initial screening was based on relevance in terms of the population and intervention described in the pre-defined eligibility criteria (Appendix 3). The eligibility criteria considered any study which included females, and in which at least 50% of participants were 10-18 years old. Furthermore, a study had to focus on economic empowerment of adolescents to qualify for Stage 1 inclusion and additionally needed to include a financial education component to qualify for Stage 2. Studies conducted between 2000 and 2015, as well as on-going studies were considered. Both qualitative and quantitative study designs, as well as studies published in Chinese, English, French, Spanish and Portuguese, qualified for inclusion, to ensure capturing potential studies from the four CSFEG countries.

Based on this initial screening step, a first selection of potentially relevant studies was made. These studies were entered into an excel spreadsheet and de-duplication was again conducted to remove any repetitions among the studies emerging through the grey literature and structured search. In the next step, the studies remaining after de-duplication were reviewed for final inclusion or exclusion in the review, based on the pre-specified eligibility criteria (Appendix 3). To do this, all remaining studies (N=242) were assigned a random number using Excel's random number generator for randomizing their order, with each of the two reviewers (JS and MS) being assigned 60% of these studies to examine. Study abstracts were reviewed and where unclear, full-texts were retrieved, if available. Studies were then either excluded or if deemed relevant, their full-text was reviewed to determine inclusion for either Stage 1 or Stage 2. The 20% overlap in studies was used to crosscheck for inter-rater reliability between the two reviewers. Agreement between the two reviewers was 82%. Studies, which resulted in conflicting assessments, were further discussed until consensus on their inclusion or exclusion was reached.

Appendix 3: Overview of Key Word Stings used in Searched Databases

Table A.2: Keywords used in database

Database searched	Search string used	Refinements/ Limits Set	Number of hits, date of search	Comments/ Updates
Psych Info and ERIC (accessed through OVID)	<p>1. POPULATION exp girl/ or exp teen/ or exp gender/ or adolescent girl* or adolescent* or teen* or teenage girl* or young adult* or young female* or young woman or young women or young girl* or older girl* or daughter* or female student* or young mother* or teen* ADJ1 mother*</p> <p>2. INTERVENTION (finance* or economic*) OR (((finance* or economic* or money or monetary or account* or earn* or expenditure* or entrepreneur* or save* or spend* or budget* or employ* or vocation* or business*) AND (education or literacy or skill* or program* or train* or life skill* or right* or goal* or management or plan* or stability or enterprise* or opportunity* or development* or intervention* or decision* or incentive*)) AND (financial empower* or empower* or emancipation* or agency or self reliance or self-reliance or independence))) OR (finance* ADJ1 train* or finance* ADJ1 skill* or financial ADJ1 plan*) OR (microcredit* or micro-credit* or microloan* or micro-loan* or micro-finance or cash transfer* or cash-transfer* or conditional cash transfer* or conditional-cash-transfer* or voucher* or physical asset* or loan product* or interest rate* or business internship* or business apprenticeship* or business counselling or business mentoring or business support)</p> <p>3. OUTCOME ((earning* or reallocation* or save* or fund* or spending* or income or salary* or wage*) OR (financial* ADJ1 planning or economic ADJ1 planning or financial* ADJ1 capital* or economic* ADJ1 capital* or financial ADJ1 resource*)) OR ((employ* or job*) AND (capital* or stability or independent* or goal* or opportunity* or detainment* or security)) OR ((entrepreneur* or profit* or Self Help Group* or SHG* or shop* or sell* or organization* or organisation* or enterprise*) OR (start-up* ADJ1 business* or startup* ADJ1 business* or employment ADJ1 goal*))</p> <p>1 AND 2 AND 3</p>	<p>LIMITS SET TO:</p> <p>PUBLICATION DATE: 2000-CURRENT</p> <p>ABSTRACTS ONLY</p> <p>STUDY TYPE: HUMAN, ABSTRACTS, JOURNAL ARTICLES, BOOKS, DISSERTATIONS, REPORTS</p>	<p>2667 hits</p> <p>13/04/2015</p>	<p>All study titles and abstracts are currently being screened on OVID and only those deemed eligible are added manually to RefWorks.</p> <p>Duplicates will be removed once all studies deemed eligible based on abstract and title have been added to RefWorks.</p>

Database searched	Search string used	Refinements/ Limits Set	Number of hits, date of search	Comments/ Updates
EconLIT (accessed through ProQuest)	<p>1. POPULATION girl* OR female* OR adolescent girl* OR adolescent* OR teen* OR teenage girl* OR young adult* OR young female* OR young woman OR young women OR young girl* OR older girl* OR daughter* OR female student* OR young mother* OR teen* ADJ1 mother* OR child* OR children*</p> <p>2. INTERVENTION (((finance* or economic* or money or monetary or account* or earn* or expenditure* or entrepreneur* or save* or spend* or budget* or employ* or vocation* or business*AND (education or literacy or skill* or program* or train* or life skill* or right* or goal* or management or plan* or stability or enterprise* or opportunity* or development* or intervention* or decision* or incentive*)) AND (financial empower* or empower* or emancipation* or agency or self reliance or self-reliance or independence))) OR (finance* NEAR/1 train* or finance* NEAR/1 skill* or financial NEAR/1 plan*) OR (microcredit* or micro-credit* or microloan* or micro-loan* or micro-finance or cash transfer* or cash-transfer* or conditional cash transfer* or conditional-cash-transfer* or voucher* or physical asset* or loan product* or interest rate* or business internship* or business apprenticeship* or business counselling or business mentoring or business support)</p> <p>3. OUTCOME ((earning* or reallocation* or save* or fund* or spending* or income or salary* or wage*) OR (financial* NEAR/1 planning or economic NEAR/1 planning or financial* NEAR/1 capital* or economic* NEAR/1 capital* or financial NEAR/1 resource*)) OR ((employ* or job*) AND (capital* or stability or independent* or goal* or opportunity* or detainment* or security)) OR ((entrepreneur* or profit* or Self Help Group* or SHG* or shop* or sell* or organization* or organisation* or enterprise*) OR (start-up* ADJ1 business* or startup* NEAR/1 business* or employment NEAR/1 goal*)) 1 AND 2 AND 3</p>	<p>LIMITS SET TO:</p> <p>PUBLICATION YEAR: 2000 TO CURRENT</p> <p>LANGUAGE: ENGLISH, PORTUGUESE, SPANISH, CHINESE</p>	<p>1612 hits</p> <p>14/04/2015</p> <p>After removal of duplicates in RefWorks: 1345 Studies</p>	<p>The languages selected were selected based on the languages available on EconLIT</p> <p>All hits have been uploaded to RefWorks and duplicates removed (yielding 1345 studies to be screened).</p>
Social Sciences Research Network	girls AND education AND empowerment	<p>LIMITS SET TO:</p> <p>Title, Abstract, Abstract ID & Keywords</p>	21 hits 14/04/2015	<p>Database does not allow for comprehensive search string, hence several strings were used. All study titles and abstracts have been screened in SSRN and only those deemed eligible were added manually to RefWorks. Duplicates will be removed once all studies deemed eligible based on abstract and title have been added to RefWorks.</p>
	girls AND empowerment		39 hits 14/04/2015	
	girls AND education AND financial		20 hits 14/04/2015	
JSTOR	girl& OR female& OR "adolescent girl&" AND education& OR "financial empower&" AND finance& OR economic&	<p>LIMITS SET TO:</p> <p>Abstract only</p> <p>PUBLICATION TYPE: Articles, Reviews, Books</p> <p>PUBLICATION DATE: 2000/01/01 to 2015/04/15</p>	<p>159 hits</p> <p>15/04/2015</p>	<p>Database does not allow for comprehensive search string, hence a simplified search string was used.</p> <p>All hits have been uploaded to RefWorks.</p>

Appendix 4: Eligibility Criteria to Determine Inclusion or Exclusion of Identified Studies

Table A.3: Eligibility criteria used

	Inclusion Criteria	Exclusion Criteria
P O P U L A T I O N	Female	Male
	Adolescents between 10-18 years ¹	Children aged >10 years and adults aged <18 years*
	¹ At least 50% of study participants in study need to be from within this age group Note: This definition may vary slightly based on a studies definition and breakdown of age segregated data for adolescents.	
I N T E R V E N T I O N	Stage 1: Interventions that may or may not include a financial education component ²	Interventions that lacks an educational component
	Stage 2: Interventions that include a financial education component ³	
	² Models of intervention that aim at economic empowerment of adolescent girls that may not include financial education but could benefit from its inclusion. ³ Interventions that include financial education and lead to economic empowerment of adolescent girls; data from these studies will be extracted and analyzed.	
O U T C O M E	Primary Outcomes: Economic Empowerment (via Life Skills, Social Education or others)	
	Secondary Outcomes: Health/HIV, Education, Life Skills, Microfinance, Vocational Skills, Empowerment	
S T U D Y D E S I G N	Study conducted between 2000-2015	Legal cases
	Languages: English, Spanish, Portuguese, Spanish, Chinese	Policy discussions
	Intervention Studies ⁴	Discussion papers
	Literature Reviews of intervention studies ⁴	
	Cross-sectional survey	
	Cohort Studies	
	Case-control studies	
	Qualitative studies	
	Case reports	
⁴ Studies which attempt to measure the effect of a particular program or intervention		

Appendix 5: Included Studies Details

Table A.4: Table of outputs, outcomes and contextual factors for included studies

No	Intervention components (P = primary; S = Secondary)	Type of resulting Model	Outcomes measured in intervention	Purported relationship with the broader goal of economic empowerment	Factors mediating and effecting the impact of the intervention
1	<p>P: Financial and health education S: Access to financial services</p> <p>Methods: RCT; Sample Size: 1000; Girls 10-19 years; Four groups - 1: Mentor-led, girl-only meetings, 2: Mentor-led, girl-only meetings and health vouchers, 3: Mentor-led, girl-only meetings, health vouchers, and access to savings accounts, 4: Control- no services.</p> <p>Country: Zambia</p>	<p>Pluralistic Model:</p> <p>Financial Education + Health Education + voucher + savings account</p> <p>F + H + A</p>	<p>Results: <i>Forthcoming</i></p> <p><u>Outcome measures:</u></p> <ol style="list-style-type: none"> 1. Self-esteem 2. Social networks 3. Attitudes and behaviors related to gender 4. Work and savings activity 5. Nutrition status 6. Literacy and numeracy skills cognitive function 7. Sexual and reproductive health knowledge 8. Sexual behaviors 	<p>- Improvement in the outcome measures indicates crucial steps towards personal and financial independence for the adolescent girls.</p>	<ol style="list-style-type: none"> 1. Gender based violence 2. Economic vulnerability 3. Social Isolation 4. Lack of access to healthcare 5. Sexually Transmitted Diseases 6. High prevalence of HIV/AIDS and 7. Unintended pregnancy

2	<p>P: Skills Training S: Vocational Training, Reproductive Health, Financial Literacy</p> <p>Methods: Pre- and post-intervention survey and post-intervention in-depth interviews; Three intervention areas: (a) basic and specialized training for adulthood: incl. health, agriculture, nursery raising, water management, financial literacy, leadership skills; (b) broadening horizons and exposure to the outside world: incl. visits to post-offices, banks, nearby cities, universities, technical institutes; (c) vocational skill training: traditional (tailoring, embroidery) and non- traditional (hand-pump repair, computer, hospital attendant, nursing); 18-month intervention; Adolescent girls' groups met 3-4 times weekly; Group size: 15-30 girls to one group coordinator; 30 groups total, 10 groups established each year over 3 years (2002-04); Setting: 30 villages of Ahmedabad and Vadodara districts, Gujarat.</p> <p>Country: India</p>	<p>Pluralistic Model:</p> <p>Vocational Training + Reproductive Health + Financial Literacy</p> <p>F + V + H</p>	<p>Results: Regular exposure to <u>intervention results in sig. higher levels of agency in:</u></p> <ol style="list-style-type: none"> 1. Decision-making 2. Self-esteem 3. Gender attitudes 4. Reproductive health awareness 5. Familiarity with safe spaces 	<p>- This intervention measures the effectiveness only by increased agency in 5 broad areas (see results column) - This increased agency is supposed to contribute to the economic empowerment of adolescent but there are no measures to explicitly document the relationship - Despite the intervention not containing a social education component the logic of the outcomes indicates a theory of change from personal/social competency to economic empowerment.</p>	<ol style="list-style-type: none"> 1. Inadequate technical skills 2. Inadequate soft/life skills 3. Discrimination (of disabled, ethnic groups, migrants, gender etc.) 4. Marriage in adolescence
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3	<p>P: Vocational Training S: Financial Literacy + Life skills</p> <p>Methods: RCT; Two groups: Intervention- 5,966 girls, control 3964 girls; participating age 14-19 years; Delivery to 100 treatment and 50 control communities.</p> <p>Country: Uganda</p>	<p>Pluralistic Model:</p> <p>Vocational Training + Financial literacy + Life Skills (social + health)</p> <p>F + V + S + H</p>	<p>Results:</p> <p><u>Resulting increase in:</u></p> <ol style="list-style-type: none"> 1. Likelihood for girls to engage in income generating activities by 72% 2. Monthly consumption expenditures by 41% 3. Preferred ages of marriage and childbearing <p><u>Decrease in:</u></p> <ol style="list-style-type: none"> 1. Teen pregnancy by 26% 2. Early entry into marriage/ cohabitation by 58% 3. Share of girls reporting sex against their will by 50% 	<p>- Findings indicate that women's economic and social empowerment can be jump-started through the combined provision of vocational and social, financial and health education, and is not necessarily held back by insurmountable constraints arising from binding social norms.</p>	<ol style="list-style-type: none"> 1. High youth unemployment 2. Early marriage & childbearing 3. Limited access to resources 4. Limited control over one's body
4	<p>P: Formal Savings Account S: Safe spaces and Financial Education</p> <p>Methods: Case-Study; Sample Size: 4 (2 in each country); Girls aged 10-19 years.</p> <p>Country: Uganda</p>	<p>Pluralistic Model:</p> <p>Safe spaces, Financial Education, and a Formal Savings Account</p> <p>F+ S + A</p>	<p>Results:</p> <p><u>Program participation results in positive changes in:</u></p> <ol style="list-style-type: none"> 1. Social networks and mobility 2. Gender norms 3. Financial literacy 4. Use of bank services 5. Saving behavior 6. Communication with parents/ guardians on financial issues <p><u>Other results:</u></p> <ol style="list-style-type: none"> 1. Group differences observed between girls receiving only savings account vs. girls participating in savings group + financial and health education: in addition to savings account <ol style="list-style-type: none"> a) Access to saving account improved girl's overall financial literacy, including knowledge b) Differences in improved social assets, future life goals, health knowledge, customer satisfaction attitudes, behavior 2. No group differences in amount saved after one year 	<p>Improved measures in the defined outcomes will lead to economic empowerment in the long run.</p>	<ol style="list-style-type: none"> 1. No safe spaces 2. No savings 3. Risk of sexual harassment

5	<p>P: Microfinance Training S: Life skills, Business training, mentoring + Financial Literacy</p> <p>Methods: RCT; Intervention group- 400 girls, Control group- 400; Baseline survey- no sampling done as applications not above required sample size; Forthcoming: Individual survey for collect follow up data for girls in the year 1 sample + baseline data for year 2 girls (Sample size target 1200 girls (150=Intervention-year1, 150=Control-year1, 500= I-y2, 400=C-y2); Girls aged 10 -19 years.</p> <p>Country: Kenya</p>	<p>Pluralistic Model:</p> <p>Microfinance Training + Life skills + Business training + mentoring + Financial Literacy</p> <p>F + M + S</p>	<p>Results: <i>Forthcoming</i></p> <p><u>Outcome measures:</u></p> <ol style="list-style-type: none"> 1. Personal earnings 2. Savings attitude 3. Pregnancy rate 4. Behavioral Empowerment 	<p>The program provides these girls with the opportunity to develop and run their own micro franchise businesses, by providing business training, start-up in kind grants and linkages to existing businesses to franchise, tailoring the curriculum to girls' specific needs, and providing on-going mentoring and support.</p>	<ol style="list-style-type: none"> 1. Social and economic vulnerability 2. Risk of gender based violence
6	<p>P: Financial education S: SEED (Save for Education, Entrepreneurship and Down payment)</p> <p>Methods: Qualitative Study-Interviews etc.; Two groups: Intervention 50 girls and boys; Control 46 boys and girls; Age range 12-17 years.</p> <p>Country: Uganda</p>	<p>Complementary Model:</p> <p>Savings account + Financial Education</p> <p>F+A</p>	<p>Results:</p> <p><u>Improved outcomes following intervention:</u></p> <ol style="list-style-type: none"> 1. Savings and asset-accumulation 2. Educational outcomes (incl. school enrolment, attendance, grades on the national PLE exam, educational aspirations after primary school) 3. Decreased sexual risk taking (incl. unsafe sexual behaviors, engagement in sexual activity, HIV knowledge and attitudes) 	<p>- Savings accounts offer a unique opportunity for orphaned adolescents to stay in school and imagine the future with optimism.</p>	<ol style="list-style-type: none"> 1. Economically disadvantaged 2. Restricted mobility 3. Limited social interaction 4. No safe spaces 5. Limited knowledge of reproductive health 6. Some exposure to vocational training 7. Narrow gender role attitudes

7	<p>P: Reproductive health S: Financial literacy + Vocational training</p> <p>Methods: Three groups- Control (reproductive health education only) vs. girls participating in intervention (reproductive health + livelihoods counselling, vocational skills training, savings formation assistance, and supportive follow-up counselling) vs. girls living in intervention area but not participating; Baseline + end line survey and in-depth interviews; weekly group sessions on reproductive health for 7-10 weeks + 10 month of vocational training (intervention group only, 19 different vocational subjects offered); volunteer peer-educators; urban slum setting.</p> <p>Country: India</p>	<p>Pluralistic Model:</p> <p>Reproductive Health + Livelihoods program (including Financial literacy + Vocational Training) F + H + V</p>	<p>Results:</p> <p><u>Sig. increase post intervention-</u></p> <ol style="list-style-type: none"> 1. Social skills index 2. Group membership 3. Knowledge of safe spaces 4. Reproductive health knowledge index 5. Hours spent in leisure time <p><u>No sig. difference post intervention:</u></p> <ol style="list-style-type: none"> 1. Self-esteem index 2. Can go alone to visit relatives (yes/no) 3. Gender role index 4. Expectation to be working in 10 years (yes/no) 5. Hours spent visiting with friends (inside and outside household) 6. Hours spent on domestic chores 7. Hours spent on labor market work (paid/unpaid/vocational training) <p><u>Vocational training:</u></p> <ol style="list-style-type: none"> 1. >80% in intervention group continue to use vocational skills after program ended 2. >50% able to open savings accounts in their name at local post office 3. 10% earn any income from their newly acquired skills 	<p>- Livelihoods program may increase the agency, decision-making power and physical mobility of adolescent girls, by building social networks and developing critical financial and income generating capacities.</p> <p>- 50% of participating girls opened savings accounts.</p> <p>- Limited effectiveness of intervention with regard to economic outcomes: (i) No difference in hours spent on labor market work (paid/unpaid/vocational training); (ii) while 80% still use acquired vocational skills post intervention, only 10% earn income from these skills (indicating few were able to translate their new skills into source of income).</p>	<ol style="list-style-type: none"> 1. Participation in home-based (unpaid) work 2. Control over own income 3. Decision making power within the household (results in need to engage parents in interventions) 4. Access to safe spaces to for girls to gather 5. Parental education (level of mother vs. father) 6. Living arrangements (multigenerational vs. living with both parents vs. one vs. neither) 7. Marital status and number of children 8. Household amenities (flush toilet, cement roof, piped water, separate room for cooking) 9. Mobility (e.g. ability to access savings account unattended) 10. Gender roles (e.g. recognition of women's value and acceptability of female wage labor)
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8	<p>P: Social education S: Financial education</p> <p>Methods: Cluster RCT - secondary schools cluster units; simple random sample methods; - Thirty intervention schools participating in Aflateen+ program, thirty control schools; Participants- 1208 girl's ages 14-18 years old interviewer-administered survey; Setting- in two districts in Tajikistan: Hisor and Mastchoh.</p> <p>Country: Tajikistan</p>	<p>Pluralistic Model:</p> <p>Social education + Financial education +Reproductive health, family planning and HIV</p> <p>F + S + H</p>	<p>Preliminary Results: <u>Program was associated with sig.:</u></p> <ul style="list-style-type: none"> - More than a 2-fold increase in knowledge of HIV - 82% increase in knowledge of other reproductive health issues including family planning - Better self-agency - More positive gender attitudes - More positive attitudes towards saving and becoming entrepreneurs - Demonstrated overall better future plans <p><u>Program did not have a significant impact on:</u></p> <ul style="list-style-type: none"> - Increasing the age from which girls expect to be married and to have their first child (for both groups: expected average marriage age- 20 years; first child-22 years. 	<ul style="list-style-type: none"> - School-based intervention targeting adolescent girls leads to positive impact on girls' self-agency, status in society, attitudes towards saving, and propensity towards entrepreneurship - Delayed marriage and motherhood result in better health outcomes for mother and children - These in turn can result in a better future for adolescent girls 	<ol style="list-style-type: none"> 1. Age of girls targeted by intervention (e.g. younger less health knowledge but stronger social networks) 2. Parental level of education 3. Family economic status 4. Age of marriage and childbearing
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9	<p>P: Sexual and Reproductive Health and Rights (SRHR) and Life Skills S: Financial Literacy</p> <p>Methods: Review of 16 existing programs in India; Two phase methodology: (I) Desk review of existing literature + Mapping of organizations and programs + Interviews with technical experts + Technical advisory group meeting I; (II) Field visits and interviews of 9 shortlisted programs + Technical Advisory group meeting II Setting: Four states- Delhi, Maharashtra + Bihar, Jharkhand (low-income); Rural, urban, and semi-urban.</p> <p>Country: India</p>	<p>Pluralistic Model:</p> <p>SRHR education + Life skills training + Vocational training + Entrepreneurs hip activities + Financial education/literacy + Micro-credit/finance/loans + SHGs/Saving opportunities</p> <p>F + H + S + V + M + A</p> <p><i>Note:</i> This was a review of 16 programs, with the following components among these: - SRHR (7) - Livelihoods (4) - Education (2) - Empowerment (2) - Nutrition (1)</p>	<p>Results:</p> <p>Three program categories:</p> <p><u>1. SRHR programs with livelihood components</u> where: - Livelihoods are incorporated in SRHR programs to enhance impact value or respond to community demands - Livelihood components typically provide vocational training and information but rarely job support and financial services</p> <p><u>2. Livelihood and livelihood plus programs</u> where: - programs aim to connect vocational skills training to a sustainable source of livelihood - emphasis is on obtaining skills for employment rather than SRHR - “Youth” focused programs tend to overlook gendered realities that affect girl’s engagement in livelihood programs; focus is often on older age, out-of school cohorts</p> <p><u>3. Integrated programs for adolescents</u> where: - both concrete SRHR and focused livelihoods modules are included - experience and longstanding community relationships enable better outcomes</p>	<p>Review revealed: - Despite common views, it is in fact possible for girls below age 18 to open savings accounts with a guardian or borrow money with a co-borrower such as parent implementing organization - Finding a suitable market for their products or services is often a challenge for girls who are trained to become entrepreneurs; therefore organizations should (i) address this by ensuring that training respond to market demands, (ii) contract with vocational training agencies to ensure placement for girls, (iii) involve market leaders in designing livelihood programs, (iv) invest resources, time and expertise in identifying new markets, (v) ensure products and services are of high quality.</p>	<ol style="list-style-type: none"> 1. Community buy in (with adolescent girl’s parents and family members) 2. Safe spaces for engagement (platforms where girls feel comfortable and access collective learning; often restricted mobility resulting from social norms of chastity) 3. Strong gender lens in programs (challenging structural and power inequalities faced by girls) 4. Differential programming (targeting specific needs for specific groups within adolescent girls themselves, e.g. age, caste, education levels, marital status) 5. Responding to girl’s practical needs (engaging with girl’s practical realities, e.g. restricted mobility, paucity of time, safety concerns, lack of resources) 6. Expand scope of livelihoods beyond skill-building activities (to include job placement and support to become self-employed)
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10	<p>P: Life Skills S: Financial Literacy</p> <p>Methods: Two groups- Control vs. intervention with baseline and 4 year follow up (program administered by 1 volunteer mentor from community per 10 students; bi-monthly meeting for 15 months + extracurricular group activities); urban setting in capital city.</p> <p>Country: Liberia</p>	<p>Pluralistic Model:</p> <p>Life skills (incl. confidence; self-esteem; social capital; healthy peer relationships; problem solving, communication and leadership skills; learn and practice rights) + Savings and financial literacy F + S</p>	<p>Results: <i>Forthcoming (2017); will measure:</i></p> <p><u>1. Schooling-</u> Secondary school completion; level of schooling completed by age relative to the average; in school or out of school</p> <p><u>2. Sexuality and pregnancy-</u> Age at first pregnancy; age at birth of first child; unprotected sex; age at first co-habitation with a romantic partner; number of sexual partners; knowledge and use of contraception</p> <p><u>3. Voice and influence-</u> Girl shares her views; and girl's level of decision-making power within her household of origin, romantic relationships, peer networks, classroom, and community</p> <p><u>4. Occupational Choice, Earnings and Savings-</u> Main occupation; main economic activities; earnings from economic activities; own savings (stock, and flow)</p>	<p><u>Primary Hypotheses:</u> <i>SOS program will:</i></p> <p>(i) reduce girls' likelihood of dropping out of school prematurely; (ii) Reduce girls' risky sexual behavior and pregnancy as a minor</p> <p><u>Secondary Hypotheses:</u> <i>SOS program may:</i></p> <p>(i) Increase extent to which a girl expresses her views, has a say over her own life, and influences others in her household and community; (ii) change girls' occupational choice, earnings, and savings; (iii) Change girls' norms and aspirations; (iv) Change the resources available to girls – her own and others – incl. time, money, social support, own knowledge, and own "life skills"; (v) Change girls' peer influences and role models; (vi) change girls' self-efficacy, self-confidence, and self-esteem.</p>	<p><i>Forthcoming (2017)</i></p>
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11	<p>P: Life skills & health S:Financial education (Literacy & Savings; Entrepreneurship)</p> <p>Methods: Baseline + 2 year follow up survey; control & intervention site; out-of-school girls only; adult mentors (age 20-40, min. 12 years education, community residents) regular meetings 3-5 times weekly in girl-only locations; girl groups by age 7-10, 11-11, 16-24; 18 urban cities.</p> <p>Country: Ethiopia</p>	<p>Pluralistic Model:</p> <p>Life skills + Health + Financial education F + S</p>	<p>Results:</p> <p><u>1. Social networks & inclusion-</u> a) Reporting having ‘many friends’: intervention baseline 29%, end line 35%; control 21% baseline and end line.</p> <p><u>2. Safe spaces & safety net-</u> Post intervention a) reporting ‘safe space’ in community to meet female friends: intervention baseline 7%, end line 25% (sig.); b) more likely to have a source from whom to borrow money; c) have an alternative place to stay</p> <p><u>3. HIV Knowledge-</u> Intervention group a) twice as likely to score well on HIV knowledge questions; b) to know where to obtain voluntary counselling and testing; c) to want to be tested; d) to have undergone testing</p> <p><u>4. General literacy-</u> a) Sig. increase in mean reading and numeracy test scores</p>	<p>- Young female domestic workers are vulnerable to exploitation and sexual abuse, with limited access to education and support</p> <p>- Transitioning from domestic work to safer and more rewarding work is seen as first step towards empowerment</p> <p>- Social networks and social inclusion work as safety nets for young marginalized girls, by making them less vulnerable and exposed to harmful and dangerous life choices</p> <p>- This includes financial circumstances, such as providing sources from whom to borrow money.</p>	<ol style="list-style-type: none"> 1. HIV status 2. Urban-rural migration 3. Orphan hood status 4. Domestic work status 5. Schooling status (never been to school, years of schooling completed) 6. Mentor-mentee relationship and trust
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12	<p>P: Established life skills, livelihood skills program</p> <p>S: Financial education</p> <p>Methods: Three groups-Control vs. two interventions (teaching arm, mentoring arm; 15 hours + 5 hours refresher); pre and post (short term) intervention survey; rural Tangail and urban Dhaka.</p> <p>Country: Bangladesh</p>	<p>Pluralistic Model:</p> <p>Life skills + Financial education</p> <p>F + S</p>	<p>Results:</p> <p>1. Financial knowledge- sig increase in knowledge of a) saving options in bank, b) term deposit's interest, c) budget component interest; no sig change on d) knowledge of loan options, e) loan repayment factors</p> <p>2. Financial attitudes- sig increase in a) positive values on necessity to set and pursue financial goals, b) save regularly, c) know about budget</p> <p>3. Financial behaviors- sig increase in a) reported savings on their own (rather family members), b) keeping records of expenditure, c) preparation of budget</p> <p>No sig. difference- health, education and sexual reproductive health; between teaching arms (these are all likely to be long-term effects)</p>	<p>- Longer exposure and follow up may be necessary to observe intermediate and long-term outcomes</p> <p>- Without income generation activity, money management skills may seem abstract to adolescents so financial education should be coupled with livelihood programs to allow for a more productive source of income</p>	<ol style="list-style-type: none"> 1. Setting (urban or rural) 2. Pedagogical teaching techniques (mentoring or teaching) 3. Control of own income (girls work but not trusted by family or self to handle money earned) 4. Marital status and dependents (single, married, divorced, children?) 5. Access to financial institution for saving or loans 6. Ineptness at young age 7. Mother's and father's years of education 8. Cultural hierarchy in schools (formal teacher student vs. peer/mentor relationships)
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Table A.5: Stage 1 studies identified that would benefit from the inclusion of financial education component

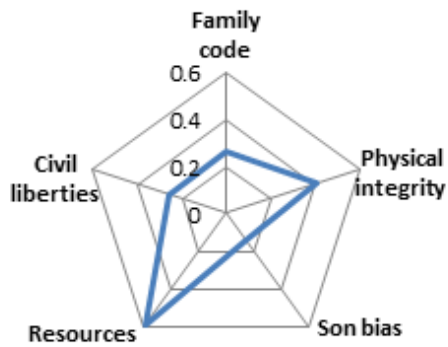
1.	<p>Findings from SHAZ!: A Feasibility Study of a Microcredit and Life-Skills HIV Prevention Intervention to Reduce Risk Among Adolescent Female Orphans in Zimbabwe</p>	<p>Megan S. Dunbar, M. et al.</p>	<p>Zimbabwe</p>	<p>2010</p>	<p>This study tested the feasibility of a combined microcredit and life-skills HIV prevention intervention among 50 adolescent female orphans in urban/ peri-urban Zimbabwe. Quantitative and qualitative data were collected on intervention delivery, HIV knowledge and behaviour, and economic indicators. The study also tested for HIV, HSV-2, and pregnancy. At 6 months, results indicated improvements in knowledge and relationship power. Because of the economic context and lack of adequate support, however, loan repayment and business success was poor. The results suggest that microcredit is not the best livelihood option to reduce risk among adolescent girls in this context.</p>	<p>Microfinance + Health (HIV) + Life Skills M + H + S</p>	<p>This intervention was not successful in reducing the risk among the adolescent female orphans through microfinance and life-skills training for HIV prevention. Adding a financial education component will give the adolescents the exposure to the fundamentals of finance to engage in income generating activities. A microfinance initiative by itself cannot help a population that has little or no knowledge of handling finances.</p>
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2.	Employment status among parenting teenage mothers enrolled in high school	Smith, ML. & Wilson, KL.	USA	2014	<p>Background: Many programs emphasize subsequent pregnancy prevention and high school graduation among teenage mothers; less is known about their ability to increase financial earnings from employment opportunities while concurrently enrolled in school. This study evaluates factors influencing employment status among teenage mothers after enrolling in a community-based randomized intervention.</p> <p>METHODS: Project Mothers and Schools (PMAS) initiative participants were surveyed at baseline and 12 months after enrolment. The 56 control group participants received homebound education and family case management, whereas the 59 intervention group participants received these basic-level services as well as group parenting time, life skills, and leadership training. A generalized estimating equation was used to identify statistically significant changes associated with the intervention.</p> <p>RESULTS: Participants were significantly more likely to receive money from their jobs at post intervention relative to baseline (OR=4.75, p=.023); this change was not statistically significant when comparing the control group to the intervention group. At post intervention, those who received money from parents were significantly less likely to receive money from their job (OR =0.12, p=.002).</p> <p>CONCLUSIONS: While PMAS benefited participants in terms of employment, the role of parental support requires additional investigation to determine its influence on teenage mothers' ability to achieve financial independence.</p>	Group parenting time + Life skills + Leadership training S	This intervention was successful, however the results of this intervention could significantly improve by adding a financial education component. Life skills is already a part of this intervention. However some more knowledge about handling finances will make them less dependent on their parents by giving them the confidence to become financially independent.
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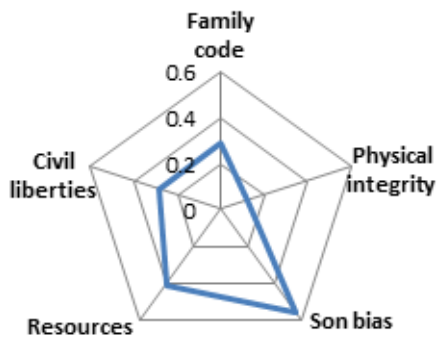
Appendix 6: Spider charts

Spider charts showing the Social Institutions and Gender Index for CSFEG countries and countries of included studies (SIGI by OECD's Development Center)

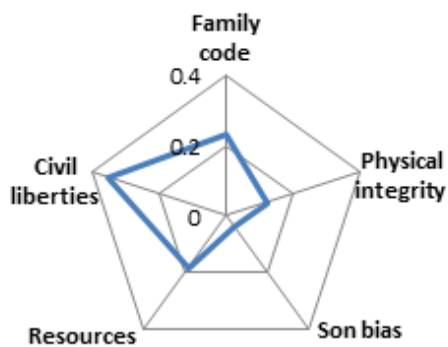
Rwanda



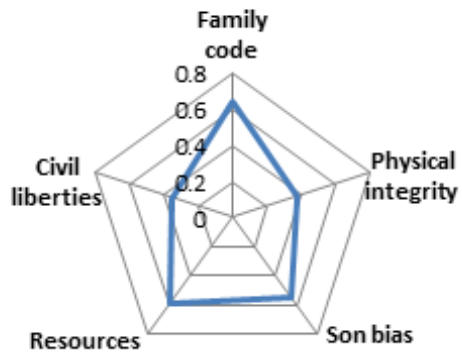
China



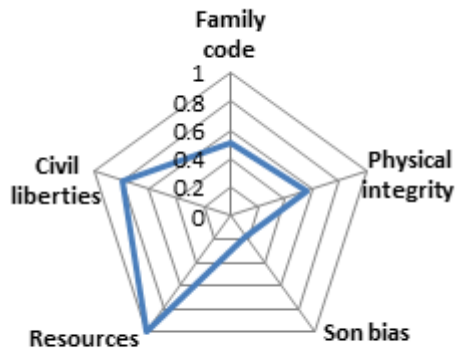
Brazil



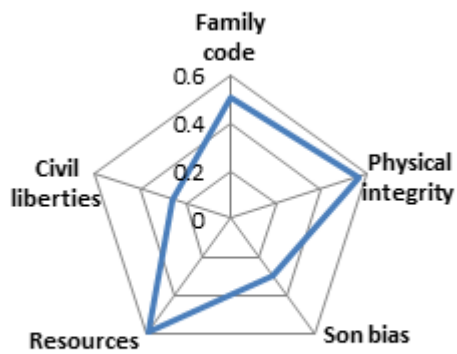
India



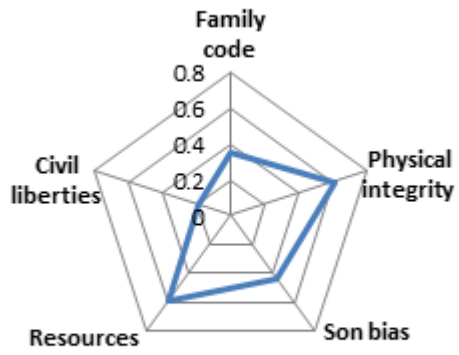
Zambia



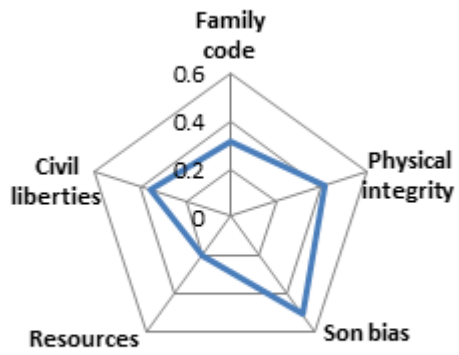
Uganda



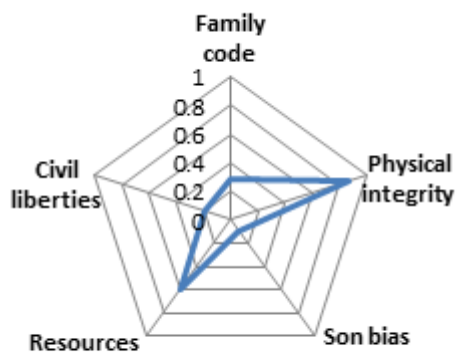
Kenya



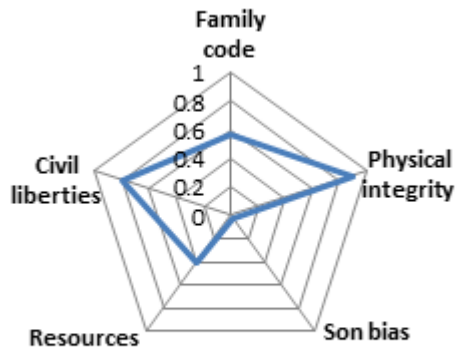
Tajikistan



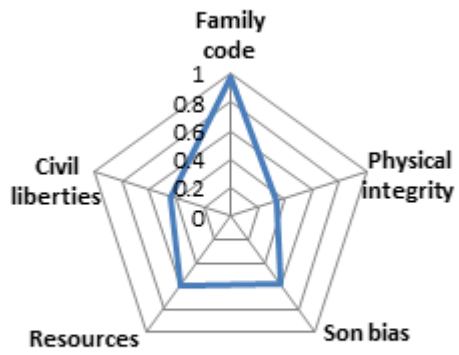
Ethiopia



Liberia



Bangladesh



Appendix 7: Country Ministry Weblinks

Table A.6: Country ministries overview

Bangladesh	Ministry of Women and Children Affairs	http://www.mowca.gov.bd/
Brazil	Secretariat of Policies for Women's Rights	http://spm.gov.br/
China	National Working Committee on Children and Women under the State Council All-China Women's Federation	http://www.nwccw.gov.cn/?action-category-catid-135 http://www.womenofchina.cn/
Ethiopia	Ministry of Women, Children and Youth Affairs	http://www.un.org/womenwatch/daw/csw/csw57/generaldiscussion/memberstates/ethiopia.pdf
India	Ministry of Women and Child Development	http://wcd.nic.in/ http://www.nmew.gov.in/index.php
Kenya	Ministry of Gender, Children and Social Development	http://www.labour.go.ke/Resources.html
Liberia	The Ministry of Gender, Children and Social Protection	http://mogdliberia.com/index.php/about-the-ministry
Rwanda	Ministry of Gender and Family Promotion National Commission of Children	http://www.migeprof.gov.rw/index.php?id=3 http://www.ncc.gov.rw/
Tajikistan	Committee on Women and Family Affairs	http://www.prezident.tj/en https://papersmart.unmeetings.org/media2/4656837/tajikistan.pdf
Uganda	Ministry of Gender, Labor and Social Development	http://www.mglsd.go.ug/home/welcome.html
Zambia	Ministry of Gender and Child Development	http://www.mgcd.gov.zm/

* Countries are listed in alphabetical order. Plan International countries have been highlighted in blue.

