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Social Capital, Savings, and Educational Performance of Orphaned Adolescents in Sub-Saharan Africa

Fred M. Ssewamala,

Associate Professor of Social Work and International Affairs, Columbia University

Leyla Karimli, Ph.D.,

Student, Columbia University School of Social Work

Han Chang-Keun, and

National University of Singapore Assistant Professor, National University of Singapore

Leyla Ismayilova

Post-Doctoral Fellow, Columbia University School of Social Work

Fred M. Ssewamala: fs2114@columbia.edu; Leyla Karimli: lk2404@columbia.edu; Han Chang-Keun: swkhck@nus.edu.sg; Leyla Ismayilova: li61@columbia.edu

Abstract

We examine the impact of social capital on savings and educational performance of orphaned adolescents participating in a family-level economic strengthening program in Uganda. Findings indicate that if given the opportunity, poor families in Uganda will use financial institutions to save for the education of their adolescent youth. Moreover, although the results are mixed, overall, adolescents with higher levels of social capital and social support, including participation in youth groups, are likely to report better saving performance compared to their counterparts with lower levels of social capital and social support. The results point to: (1) the role for family-economic strengthening programs specifically focused on improving the educational outcomes of orphaned adolescents in sub-Saharan Africa, and (2) the need for adolescents to be encouraged to participate in youth groups since these groups seem to offer the much needed supportive informal institutional structure for positive adolescent outcomes.

Keywords

Social Capital; Social Support; Family Economic Strengthening; Children Savings Accounts; Microfinance; Orphaned Children; Sub-Saharan Africa; Uganda

Introduction

This study examines the impact of social capital on saving and educational performance of orphaned adolescents participating in a family-level economic strengthening program aimed at addressing poverty and inequality among this group of children in a sub-Saharan African country: Uganda. Orphaned children, defined as children who have lost one or both parents,

Direct all correspondences to Fred M. Ssewamala, Associate Professor of Social Work and International Affairs, Columbia University, 1255 Amsterdam Avenue, New York, NY, 10027. fs2114@columbia.edu.

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are particularly vulnerable to poverty and inequality. This could partly be for a couple of reasons. First, it could be simply because of the loss of a parent or family provider, hence the loss of a key source of income (financial capital). Moreover, in the case of sub-Saharan Africa, where a significant number of orphaned children have been directly affected by disease, including HIV/AIDS, and where there is inadequate access to public social welfare services and safety nets, the situation is aggravated by the need to devote limited family resources to the care of ill family members. In this context, a family's social support network, which may include relations to extended family members, friends, neighbours, and community-based organisations (Coleman, 1988; Friedmann, 1996), would function as an important, and sometimes the only asset, allowing the orphaned child to access resources that would be otherwise unavailable. Indeed, in instances of scarce resources and lack of reliable public social welfare programs and safety nets, the difference between survival and starvation for poor households may be the ability to tap into their available social support. For most of these families, social support may be the only collateral or critical resource enabling them to survive.

Second, the loss of a parent may also mean the loss of a key source of social support and other valuable social connections and networks. As a result, there is typically an interruption and/or loss of much needed social capital, defined as resources, capacities, and linkages available to individuals or groups through networks of more or less institutionalized relationships (Bourdieu, 1986; Foley & Edwards, 1999).

Background and theory

Social capital theory prizes the role of social networks, relations, connections, and norms of reciprocity in influencing economic and non-economic benefits to individuals (Bourdieu, 1986; Bowles & Gintis, 2002; J. Coleman, 1988; Collier, 2002; Putnam, 2000; Woolcock & Narayan, 2000). Our study explores the relationship between social capital, saving, and educational outcomes of orphaned adolescents participating in a family-level economic strengthening program aimed at addressing poverty and inequality among youth. Hence, our study is situated within the framework of social capital theory.

On an individual level, social capital is posited to positively affect children's academic achievements and educational attainment (Coleman, 1991; McNeal Jr, 1999; Topping, 1992). Specifically, social capital—in the form of relationships within the family (investment of time and effort in shared activities; parents helping children with their homework) and outside the family (family members socializing with other members in the community)—is believed to have a positive effect on youth performance within educational settings, including increased rates of high school graduation, college enrolment, and decreased rates of school drop-out (Coleman, 1988; Furstenberg Jr & Hughes, 1995; Teachman, 1996).

On a more macro or community level (beyond the individual-level), there is evidence of positive effects of social capital on aggregate economic growth (Knack & Keefer, 1997) as well as on incomes (Helliwell, 2006). For example, several microfinance programs promoting financial inclusion of the poor in the global south (Asia, Africa, and Latin America) have consistently used social networks (which, as detailed above, are part of the social capital theoretical framework) as a substitute for financial collateral when extending micro-loans to the poor, through group-lending (Ssewamala & Sherraden, 2004). Indeed, several scholars have argued that using social networks in group-micro-lending programs reduces risks and costs, thereby facilitating financial inclusion for the poor and vulnerable strata of populations (Granovetter, 2000; Mayoux, 2001; Woolcock & Narayan, 2000). Against that background, some scholars have suggested that social networks may increase access to services and resources, for example, credit (Baliamoune-Lutz & Lutz, 2004; Fafchamps & Minten, 2002), and may boost household incomes (Narayan & Pritchett, 1999). Moreover, at the community

level, some scholars have argued that communities with greater social capital (and stronger social networks) are less vulnerable to economic shocks (Carter & Maluccio, 2003; Cribb & Brown, 1995).

It is important to note that despite the fact that some studies continue to prize social capital in influencing socio-economic performance both at the individual (micro) and community (macro) level, there are studies maintaining that the positive effects of social capital are not universal across all groups of people. For example, Horvat and colleagues point to the so-called “inter-generational closure” (family members/parents networking with other parents) prized by social capital theorists to be a middle-class phenomena not exhibited in poor families (Horvat, Weininger & Lareau, 2003). The effect of parental support on children’s educational performance has also been argued to vary across social status (Lareau, 1987; Lareau & Horvat, 1999)—as opposed to having constant outcomes in favour of the positive role of social capital.

Against that backdrop, this paper addresses two research questions:

1. To what extent does social capital influence the education outcomes of orphaned adolescents?
2. To what extent does social capital influence saving performance of orphaned adolescents participating in a family-level economic strengthening program aimed at addressing poverty and inequality through the use of savings accounts?

These two questions are important because: 1) by definition, an orphaned child is one who has lost one or both parents. Therefore, it is important to ascertain the extent to which the orphaned child’s family social support and networks, which in this case may be representing the child’s only available social capital, would help the orphaned child in benefitting from an intervention aimed at improving his/her socio-economic status. In other words, to what extent would this child be able to rely on his/her (most likely) only available collateral to pursue long-term opportunities? 2) Because orphaned children represent one of the most vulnerable groups to poverty and inequality, the social networks that their parents established may be the most important social capital that they readily have. It is therefore important for programming and practice to ascertain the extent to which orphaned children in a poor country with inadequate access to public social welfare services and safety nets, may depend (or rely) on the social capital available to them in times of need. We specifically offer the following hypotheses:

1. Orphaned adolescents with higher levels of social capital will report better educational outcomes compared to orphaned adolescents with lower levels of social capital.
2. Among adolescents enrolled in a family-level economic strengthening program aimed at addressing poverty and inequality through the use of savings accounts, participants with higher levels of social capital will report higher savings compared to participants with lower levels of social capital.

As mentioned earlier, social capital can be conceptualized and measured from various perspectives including the individual-level perspective (i.e., intra-family relations and peer connections), or the macro/community-level perspective (i.e., intra-community relations and connections). In this paper, we focus on both the individual and macro/community perspective of social capital. At the individual-level, we specifically focus on intra-family relationships, such as family members investing time and effort in shared activities with the orphaned child, and family members helping children with their school homework. At the macro/community-level, we focus on intra-community relations, such as children socializing with other people within the community and children’s participation in youth groups. This conceptualization is consistent with several existing studies on social capital (Narayan & Cassidy, 2001; Liu & Besser, 2003; Lombe & Ssewamala, 2007).

Data source: Suubi Project

To address the questions guiding this paper we use a dataset from a National Institutes of Mental Health funded study (MH076475-01) in Uganda called Suubi Project (2005–2008). Suubi means “hope” in one of the local languages widely spoken in Uganda. The country (Uganda) is one of the poorest countries in Sub-Saharan Africa. The Suubi Project was specifically implemented in the southern district of the country called Rakai. The study district (Rakai) is considered to be the epicenter of HIV/AIDS in the country, with high numbers of children orphaned and/or made vulnerable due to AIDS. Participants in the study were orphaned adolescents with an average age of 13.7 years. They were in their last year of primary school prior to the transition to secondary school. This is the time when many adolescents in Uganda would be at risk of dropping out of school.

The study used a cluster-randomized design in which 15 rural primary schools with similar socio-economic characteristics (including academic performance and socio-economic status of children attending the schools) were assigned to two groups: six schools were placed in the control condition (n=148 students), and 9 schools were placed in the experimental condition (n=138 students). Children in the control condition received the usual services for orphaned youth which comprised of recreation services and opportunities (including sports), counseling, provision of food aid (specifically school lunches), and scholastic materials (including textbooks). Parts of these care services were sponsored and/or administered by the partnering community-based organization, Matala Parish. The Suubi Project provided the other parts, including the textbooks. Children in the experimental condition schools (hereafter experimental condition) received the usual services outlined above, plus three additional components of an economic empowerment intervention, which included: (1) a matched savings account for educational opportunities and/or investing in a small business; (2) financial management classes aimed at promoting family-level income generating projects expected to enhance economic stability, reduce poverty and inequality, and enhance protective family processes for children; and (3) an adult mentor to reinforce learning. (For a detailed description of the Suubi intervention, see Ssewamala & Ismayilova, 2009; Ssewamala et al., 2010).

We used longitudinal data collected at baseline/pre-Suubi intervention (herein referred to as Wave 1) and 10–12 months following Suubi intervention (herein referred to as Wave 2). Self-reported data (educational plans and aspirations, perceived family and social support, and involvement in youth groups) were collected using interviewer-administered survey. Questions in the interviews were adapted from scales employed previously in Uganda (Ssewamala, Alicea, Bannon, & Ismayilova, 2008) and South Africa (Bhana et al., 2004). Savings data came from participants’ bank statements received directly from the banks, while participants’ academic performance data came from school records.

In addressing question 1: *ascertaining the extent to which social capital influences the education outcomes of orphaned adolescents*, we used data on children in the control condition and children in the experimental condition. Because of attrition and missing data, our sample reduced from 286 children at Wave 1 to 277 at Wave 2. Thus, our analysis for question 1 uses data from 277 participants with complete information from the two waves (see Table 1).

In addressing question 2: *ascertaining the extent to which social capital influences saving performance of orphaned adolescents participating in a family-level economic strengthening program aimed at addressing poverty and inequality through the use of savings accounts*, we specifically focus our analysis on 138 children in the experimental condition. This was the group of children with verifiable and accurate information on savings obtained directly from the financial institutions holding the children savings accounts (CSAs).

Outcome variables

Educational Outcomes

In order to measure educational outcomes, we use (1) school grades, measured by Primary Leaving Examination (PLE)—a nationally administered standardized examination taken by all students completing Primary-seven (the last grade in primary schooling); and (2) educational plans and aspirations of orphaned children after secondary school. We captured educational outcomes for all children in the control and experimental groups.

First, PLE is measured in aggregates—with a range of 4 to 36. A lower aggregate indicates better performance. To illustrate, a total aggregate of 4 means that a child received Distinction 1 (the best grade one could get in any given subject) for each of the four subjects on which each student is tested (the subjects on which each student is tested are: Mathematics, English, Social Studies, and Science). Likewise, if a child gets total aggregate 36, it means that he/she got Failure 9 (also represented as F9, the worst grade one could get) for each of the four subjects outlined above. The Ugandan primary grading system was introduced by Britain during the colonial period prior to the country's political independence in 1962. Thus, the system is akin to the British grading system. Since the baseline data of this study were collected at the beginning of the primary school academic year, no students had taken PLE. Therefore, aggregates from PLE taken by Wave 2 (November-December—which is the end of an academic year in the Ugandan primary education system) was used as a measure of school grades.

Second, to measure students' educational plans and aspirations, the survey asked "*What are your educational plans after secondary school (equivalent to 12th grade in the US education system)?*" Responses consisted of "I have no plans", "Vocational/technical or job training", "Go to a college which awards diplomas", and "Go to university for a degree". The responses were coded from 1 to 4. A higher score represents higher educational aspiration of the student. The ordinal measure of a student's educational aspiration at Wave 2 was used in the ordinal regression model, controlling for a student's educational plan and aspiration at Wave 1 and other covariates (see Table 1). It is important to note that by Wave 2 students had completed their PLE examinations. Thus, asking students about their plans after secondary school was the most appropriate question that would lead to the students' future educational plans.

Saving outcomes

To address saving performance of children in the experimental condition, we used average savings over a period of 15 months. We specifically divided total savings per participant by the number of months in which a participant saved to get average monthly savings per participant. The savings data were transformed by a natural log to correct for the un normal distribution (skewness =6.20; Kurtosis=47.80).

Predictor variables

Social capital

Given that social capital is multidimensional, including both formal and informal social networks and social ties (Liu & Besser, 2003), we used five measures of both formal and informal social ties to represent social capital. These include, (i) a family cohesion scale; (ii) perceived support from an important adult family member scale; (iii) type of caregiver; (iv) participant's involvement in youth group; and (v) whether a child was aware that his/her caregiver was saving money for him/her. All of these indicators of social capital were measured at Wave 2.

1. Family cohesion scale—This scale has four items which include: “*Family members feel very close to each other*”, “*Family members like to spend free time with each other*”, “*Family members ask each other for help*”, and “*We (family members) can easily think of things to do together as a family*”. Each item was rated on a 4-point likert scale with responses ranging from “Not always true” to “Always true”. We created a family cohesion composite index with scores ranging from 4 (lowest family cohesion score, representing possible lowest social capital) to 16 (highest family cohesion score, representing possible highest social capital).

2. Perceived support from an important adult scale—This scale has four items specifically measuring instrumental support provided by the most important adult in a child’s life at the time of the study. The items include: “*This person is always willing to help me in practical ways (loan money, meals and clothes)*”; “*This person would help me if I had a problem in school or with other kids*”; “*This person is available when I need him or her*”; and “*This person is a good listener when I’m having problems*”. Each item was rated on a 5-point likert scale ranging from ‘Never true’ to ‘Always true’. We created a perceived caregiver support composite index with scores ranging from 4 (lowest perceived caregiver support score, representing possible lowest social capital) to 20 (highest perceived caregiver support score, representing possible highest social capital).

Questions for both scales (family cohesion and perceived support from an important adult) were adapted from Tolan and colleagues (Tolan et al., 2002) and have been used in Africa with excellent psychometric properties (Bhana et al., 2004; Ssewamala et al., 2008).

3. Type of caregiver—This was a single item measure asking a participant who his/her primary caregiver is. The responses were: father, mother, grandmother, grandfather, aunt, uncle, sister, brother, or other relatives. For analysis, the responses were collapsed into three groups: biological parent, grandparent(s), and other relatives. The “other relatives” category included, aunt, uncle, sister, brother, and other relatives.

4. Participant’s involvement in youth groups—This was a single item measuring whether a participant belonged to any legally recognized formal youth group (including boy scouts, girl guides, and debate clubs). The response to this item was either “yes” or “no”.

5. Whether a child was aware that his/her caregiver or parent was saving money for him/her—The response to this item was either “yes” or “no”.

Covariates

We included socioeconomic characteristics of adolescents: age, gender, number of children, and family asset ownership (measured by number of assets such as gardens and livestock). While the first two characteristics (age and gender) were measured at Wave 1, the rest were measured at Wave 2. To control for educational motivation and performance, skipping school without permission and educational plan at Wave 1 were included. (See Table 1).

Results

Socio-demographic characteristics of the sample are presented in Table 1. At baseline, study participants were, on average, 13.7 years old. Fifty-seven percent of the participants were girls. Participants lived in families with an average of 3 other children (excluding the child enrolled in the study). Thirty-five percent of the participants were cared for by a biological parent, 31% were cared for by grandparents, while 34% reported being cared for by other relatives (see details above for a definition of this category). Participants’ families primarily relied on farming with each family reporting an average of 3.72 family gardens from where they obtained food

for subsistence living. On average, each family had at least 1.8 livestock animals (specifically cows and goats). About 23% of the children in the study reported being involved in a legally recognized formal youth group (a measure of peer support). Thirty-six percent of the participants reported knowing that their parents were saving money for them. Regarding family cohesion and perceived support from an important adult, participants reported high scores on both measures: on average, participants scored 14.3 points on a 4–16 point family cohesion scale; and 17.3 on a 4–20 perceived support from an important adult scale.

With regard to saving performance, out of the 138 children in the experimental group (with the opportunity to save in a CSA), 12 did not save, meaning that they did not make a single deposit in the 15 months for which we received bank statements. For the remaining 126 participants, they saved an average of US Dollars 6.24 per month.

In regards to educational outcomes, 10% of the participants ($n=29$) did not report their primary leaving examinations (PLE). This could be for two reasons: 1) some participants may not have been eligible to sit for the examinations, hence had to wait for a future date (as dictated by a specific primary school to which they attended); and 2) other participants may simply have dropped out of school before taking their PLE. For children with complete PLE grades during the study period ($n=257$), the average score reported was 27.1 (sd. 6.5), demonstrating a fairly low performance based on 4 being the best possible score and 36 being the worst possible score. This is most likely a reflection of the type of schools in the study area: poor rural schools with very limited resources including classrooms, books, and qualified teachers.

Finally, at Wave 2, about 16% of participants reported having no plans to continue education. Eleven percent of the participants were planning to continue their education through vocational schooling with another 11% planning to go on to college for diploma courses. The majority (63%) were planning to go on to university for degree courses.

Impact of social capital on educational outcomes

PLE at Wave 2

We used Ordinary Least Square (OLS) regression to examine the relationship between social capital and educational performance measured by PLE. Since lower scores in PLE indicate better educational outcomes, the direction of covariates should be interpreted carefully. For example, if negatively associated, it means a positive association of a covariate with the educational performance.

Results pertaining to the impact of social capital on educational performance indicate that social capital has a positive impact on children's educational performance. As reflected in Table 2, the model with the measures of social capital as predictors of educational performance explains 13% of the variance in educational performance.

After controlling for several covariates (see Table 2), two measures of social capital were associated with educational performance. Specifically, knowing that parents were saving for the child was significantly associated with better PLE scores ($b = -1.83, p < .05$); and involvement in a legally recognized formal youth group was marginally associated with better PLE scores ($b = -3.10, p < .10$). The other three measures of social capital, namely family cohesion, perceived support from an important adult, and type of caregiver, were not significantly associated with educational performance.

Upon examining other controls, we found that children with educational plans beyond primary school also performed better on the PLE score ($b = .87, p < .05$). In addition, older adolescents were likely to have poorer PLE scores compared to younger adolescents ($b = .83, p < .01$).

Educational plans and aspirations at Wave 2

We used the ordinal regression model to examine the association between social support and adolescents' educational plans and aspirations. In the model, we control for several socioeconomic characteristics. Because of attrition and missing data on educational plans and aspirations, the sample size was reduced to 236. We found perceived support from an important adult to be significantly associated with having future educational plans and aspirations by the study participants. Controlling for other covariates, the odds ratio of the participants' perception of receiving support from an important adult is 1.12. In addition, we found that skipping school is negatively associated with future educational plans and aspirations. Children who skip school are less likely to have future educational plans and aspirations (adjusted odds ratio = .54, 95% CI = -1.20, -.03). Last, we found the adolescents' gender to be significantly associated with educational plans and aspirations. Specifically, girls reported more positive future educational plans and aspirations than boys (adjusted odds ratio = 2.25, 95% CI = .28, 1.34).

Impact of social capital on saving outcomes

As mentioned earlier, we only used data for participants in the experimental condition (with CDAs) to address the question regarding social capital and saving outcomes. This deliberate decision was based on the fact that participants in the experimental condition had verifiable savings information obtained directly from the financial institutions, yet their counterparts in the control condition did not. Because of attrition and missing data, our sample in the treatment condition reduced from 138 children at Wave 1 to 132 at Wave 2. Thus, our analysis regarding the impact of social capital on saving outcomes uses data from 132 participants in the treatment condition (with complete information from the two waves).

We find that social capital significantly impacts children's saving performance. Specifically, support from an important adult is strongly associated with higher saving performance among adolescents ($b = .15, p < .001$). Second, children who knew that their caregivers/parents were saving for them also performed better on average savings in Suubi ($b = .60, p < .01$). Third, caregiver type is a significant predictor of saving. Children who are being cared for by grandparents are likely to save less than those who are being cared for by other relatives ($b = -.58, p < .05$). Further, over the 15 month period, female participants saved more than their male counterparts ($b = .49, p < .05$). Significant gender differences in savings disappeared in the model without non-savers. This could be because female participants were overrepresented in both the high-savers group and the non-savers group. In addition, saving outcomes were negatively associated with families' ownership of gardens ($b = -.16, p < .05$).

Discussion

The study examined two research questions: 1) the extent to which social capital influences the education outcomes of orphaned adolescents and; 2) the extent to which social capital influences saving performance of orphaned adolescents participating in a family-level economic strengthening program aimed at addressing poverty and inequality through the use of savings accounts. The findings of our study are mixed. First, considering the association between social capital and educational outcomes, two out of the five measures of social capital are significantly associated with adolescents' educational outcomes. These include an adolescent knowing that his/her caregiver had money set aside (monetary savings) either in a CDA or any other savings account for the adolescent's education was the strongest measure of social capital associated with adolescents' improved academic performance. This is an interesting finding with both theoretical and practical importance. We do not know with certainty why adolescents who knew that their caregivers were saving for their education performed better than those who did not know. What we do know, is the fact that the finding

is consistent with asset theory, which would predict that a child who knows that her/his parents or caregivers are saving for her/his education would be motivated to stay in school, study more, strive to earn better grades, and pursue further education (Sherraden, 1990; Sherraden, 1991). Assets (in this case, savings) influence people's behavior. In addition, our finding aligns with earlier studies that have found parental saving, as a form of parental support, to increase the likelihood of a child's postsecondary aspirations (Hossler & Vesper, 1993). Indeed, a positive correlation between parental assets and a child's educational performance has been suggested by several studies (Conley, 2001; Zhan, 2006; Zhan & Sherraden, 2003).

Our findings suggest that participants' involvement in youth groups may have a positive effect on educational outcomes. It may be that youth groups avail participants the opportunity to share in and contribute to peer discussions related to education, which may result in improvements in their academic performance and their educational plans and aspirations.

Our other three measures of social capital, including family cohesion, perceived support from an important adult, and type of caregiver, were not associated with participants' educational outcomes. Therefore, hypothesis number 1 (guided by social capital theory), which is, *orphaned adolescents with higher levels of social capital will report better educational outcomes compared to adolescents with lower levels of social capital*, was only partially supported. We cannot say for sure why the partial support for the hypothesis, but it could be that part of the question regarding social capital and participants' educational outcomes would best be addressed by a qualitative measure (for example, in-depth interviews) rather than purely quantitative measures as applied in the current study.

Regarding savings performance, hypothesis number 2, which is, *participants with higher levels of social capital will report higher savings compared to participants with lower levels of social capital* was fully supported. A child having knowledge that her/his parents or caregivers were saving for her/him boosted that child's personal savings. The explanation for this trend could possibly lie in the argument that children who believed that their personal savings would be matched by their caregivers'/parental savings had an added incentive to save more. An alternative explanation may be based on the assumption that caregivers/parents who saved for their children were financially relatively well-off (Dyran, Skinner, & Zeldes, 2004; Hendershott & Peek, 1995; Mayer, 1966). Thus, children under their care would have a greater opportunity to devote their personal resources toward their individual CDAs instead of, for example, supplementing the family's day-to-day upkeep and consumption. Indeed, one would be justified in arguing that if a child has less financial obligations or needs, that child would more likely save their earned resources into the CDA, resulting in higher savings overall.

It is important to note that ownership of gardens, as an indicator of family assets, demonstrated a negative relationship with both adolescents' saving performance and educational outcomes. This is an interesting finding since one would expect that ownership of assets, such as gardens, would lead to increased savings. We are not certain of the reason for these observed trends, we can speculate however, that families owning gardens used their would-be savings to invest in the upkeep of their gardens, which, as with most rural families that practice subsistence farming, gardens are viewed as a form of family small-business investment. For poor families caring for orphaned children, investment in such undertakings may be more prized for its short-term returns than saving for a child's education whose returns tend to be long-term. These are speculations which would be best addressed by qualitative measures, rather than a purely quantitative measure as currently applied in our study.

Type of caregiver (who takes care of a child) was found to have a significant association with child's savings. Being cared for by grandparents as opposed to other relatives was inversely associated with participants' savings. Some studies on the role of extended families on

orphaned children in sub-Saharan Africa draw attention to the mutual support between a grandparent and a child. Grandparents are both providers of care to their grandchildren and receivers of a care from their grandchildren (Foster, 2000). In this context, social networks—with grandparents—might have reduced savings because funds are being used to care for grandparents.

Overall, children reported relatively high levels of family cohesion and feelings of belonging to a family unit. Nevertheless, there was no significant relationship between family cohesion and savings, nor was family cohesion related to educational outcomes. This may suggest that a feeling of emotional connectedness with family members was not sufficient to enhance children's savings, school grades, or educational plans. On the other hand, perceived support from an important adult has a statistically significant contribution to a child's saving performance and a child's aspirations to continue with education (see Tables 2 and 3). Moreover, as reflected in Table 2, participation in a youth group was also linked with better educational outcomes.

Conclusion

The findings of this study contribute to our understanding of the impact of social capital on saving and educational performance of orphaned adolescents participating in a family-based economic empowerment intervention. We specifically find that orphaned adolescents with higher levels of social capital report better savings outcomes compared to adolescents with lower levels of social capital. As to the effect of social capital on educational performance, we find that adolescents who reported participating in a youth group, and those who reported knowing that their parents/guardians were saving for their education either in a CDA or any other account, had better educational outcomes compared to adolescents who did not participate in any youth group and those who did not know that their parents/guardians were saving for them. These findings have important implications, especially in programming for care and support of orphaned children and adolescents. For example, programs working with orphaned adolescents may need to encourage them to organize youth groups since these groups seem to offer the much needed supportive informal institutional structure for positive adolescent outcomes.

There are three limitations to our study that need to be highlighted: first, the study explores social capital among school-going orphaned adolescents. The fact that these are school-going adolescents means that they have peers' and school teachers' support available to them. Further, these are children living within a family setting. The results would probably be different if the study was focused on out-of-school orphaned children or adolescents with no school-embedded social connections, and/or orphaned children or adolescents living in an institution such as an orphanage, those in child-headed households, or those living on the streets (street children). Second, our study may have benefitted from a qualitative measure, specifically exploring the reasons behind some of the observable outcomes, for example, the negative relationship between ownership of gardens, as an indicator of family assets, with children's saving performance and educational outcomes. Third, the results presented in this paper are from two time points over a one-year period (Wave 1 and Wave 2). The reported findings may be different over time (i.e., beyond the one-year period). Given that Suubi was a 3-year year study with 3 waves of data collection, we will, in the subsequent analysis, ascertain the effect of time on the reported outcomes.

Overall, even with these three limitations, it is important to note that the findings of our study point to a positive role of social capital in influencing orphaned adolescents' educational outcomes and performance in a family-level economic strengthening program in a poor sub-Saharan African country. Moreover, the findings suggest that if given the opportunity—similar

to the one being offered through the Suubi Program, poor families in Uganda will use financial institutions to save for the education of their orphaned adolescents.

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References

- Balioune-Lutz, M.; Lutz, S. The Contribution of Income, Social Capital, and Institutions to Human Well-Being in Africa (Working Paper). Center for European Integration Studies (ZEI), Rheinische Friedrich-Wilhelms-Universität Bonn; 2004.
- Bhana A, Petersen I, Mason A, Mahintsho Z, Bell C, McKay M. Children and youth at risk: Adaptation and pilot study of the CHAMP (Amaqhawwe) programme in South Africa. *African Journal of AIDS Research* 2004;3(1):33–41.
- Bourdieu, P. The Forms of Capital. In: Richardson, JG., editor. *Hand Book of Theory and Research for Sociology Education*. New York: Greenwood Press; 1986.
- Bowles S, Gintis H. Social capital and community governance. *Economic Journal* 2002;112(483):419–436.
- Carter M, Maluccio J. Social capital and coping with economic shocks: An analysis of stunting of South African children. *World Development* 2003;31(7):1147–1163.
- Coleman J. Social capital in the creation of human capital. *The American Journal of Sociology* 1988;94(S1):S95–S120.
- Coleman, J. Office of Educational Research and Improvement. Washington, DC: US Department of Education; 1991. Parental involvement in education. Policy Perspective.
- Collier, P. Social capital and poverty: A microeconomic perspective. In: Grootaert, C.; Van Bastelaer, T., editors. *The Role of Social Capital in Development: An Empirical Assessment*. Cambridge University Press; 2002.
- Conley D. Capital for college: Parental assets and postsecondary schooling. *Sociology of Education* 2001;74(1):59–72.
- Cribb, R.; Brown, C. *Modern Indonesia: A history since 1945*. London: Longman Pub Group; 1995.
- Dynan K, Skinner J, Zeldes S. Do the rich save more? *Journal of Political Economy* 2004;112(2):397–444.
- Fafchamps M, Minten B. Returns to social network capital among traders. *Oxford Economic Papers* 2002;54(2):173–206.
- Foley MW, Edwards B. Is it time to disinvest in social capital? *Journal of Public Policy* 1999;19(2):141–173.
- Foster G. The capacity of the extended family for orphans in Africa. *Psychology Health & Medicine* 2000;5:55–62.
- Friedmann J. Rethinking poverty: Empowerment and citizen rights. *International Social Science Journal* 1996;48(2):161–172.
- Furstenberg F Jr, Hughes M. Social capital and successful development among at-risk youth. *Journal of Marriage and the Family* 1995;57(3):580–592.
- Granovetter, M. The economic sociology of firms and entrepreneurs. In: Portes, A., editor. *The economic sociology of immigration: essays on networks, ethnicity, and entrepreneurship*. New York: Russell Sage Foundation; 2000.
- Helliwell JK. Well-being, social capital and public policy: What's new? *The Economic Journal* 2006;116(510):C34–C45.

- Hendershott, P.; Peek, J. Household saving: An econometric investigation. In: Hendershott, PH., editor. The level and composition of household saving. Cambridge, MA: Ballinger; 1995.
- Horvat EMN, Weininger EB, Lareau A. From social ties to social capital: Class differences in the relations between schools and parent networks. *American Educational Research Journal* 2003;40(2):319–351.
- Hossler D, Vesper N. An exploratory study of the factors associated with parental saving for postsecondary education. *Journal of Higher Education* 1993;64(2)
- Knack S, Keefer P. Does social capital have an economic impact? A cross-country investigation. *Quarterly Journal of Economics* 1997;112(4):1252–1288.
- Lareau A. Social class differences in family-school relationships: The importance of cultural capital. *Sociology of Education* 1987;60(2):73–85.
- Lareau A, Horvat E. Moments of social inclusion and exclusion race, class, and cultural capital in family-school relationships. *Sociology of Education* 1999;72(1):37–53.
- Levy S, Lampman C, Handler A, Flay B, Weeks K. Young adolescent attitudes toward sex and substance use: Implications for AIDS prevention. *AIDS Education and Prevention* 1993;5(4):340–351. [PubMed: 8297713]
- Liu A, Besser T. Social capital and participation in community improvement activities by elderly residents in small towns and rural communities. *Rural Sociology* 2003;68(3):343–365.
- Mayer T. The propensity to consume permanent income. *The American Economic Review* 1966;56(5): 1158–1177.
- Mayoux L. Tackling the down side: Social capital, women's empowerment and micro-finance in Cameroon. *Development and Change* 2001;32:421–450.
- McNeal R Jr. Parental involvement as social capital: Differential effectiveness on science achievement, truancy, and dropping out. *Social Forces* 1999;78(1):117–144.
- Narayan D, Pritchett L. Cents and sociability: Household income and social capital in rural Tanzania. *Economic Development and Social Change* 1999;47(4):871–897.
- Putnam, R. *Bowling Alone: The collapse and revival of American community*. New York: Simon and Schuster; 2000.
- Sherraden M. Stakeholding: Notes in a theory of welfare based on assets. *Social Service Review* 1990;64 (4):580–601.
- Sherraden, M. *A new American welfare policy*. New York: M. E. Sharpe; 1991. *Assets and the Poor*.
- Ssewamala F, Sherraden M. Integrating savings into microenterprise programs for the poor: Do institutions matter? *Social Service Review* 2004;78(3):404–428.
- Ssewamala FM, Alicea S, Bannon WM Jr, Ismayilova L. A novel economic intervention to reduce HIV risks among school-going AIDS orphans in rural Uganda. *Journal of Adolescent Health* 2008;42(1): 102–104. [PubMed: 18155037]
- Ssewamala FM, Ismayilova L. Integrating children's savings accounts in the care and support of orphaned adolescents in rural Uganda. *Social Service Review* 2009;83(3):453–472. [PubMed: 20445763]
- Ssewamala FM, Ismayilova L, McKay M, Sperber E, Bannon W Jr, Alicea S. Gender and the effects of an economic empowerment program on attitudes toward sexual risk-taking among AIDS-orphaned adolescent youth in Uganda. *Journal of Adolescent Health* 2010;46(4):372–378. [PubMed: 20307827]
- Teachman J, Paasch K, Carver K. Social capital and dropping out of school early. *Journal of Marriage and the Family* 1996;58(3):773–783.
- Tolan P, Hanish L, McKay M, Dickey M. Evaluating process in child and family interventions: Aggression prevention as an example. *Journal of Family Psychology* 2002;16(2):220–236. [PubMed: 12085734]
- Topping K. Short-and long-term follow-up of parental involvement in reading projects. *British Educational Research Journal* 1992;18(4):369–379.
- Woolcock M, Narayan D. Social capital: Implications for development theory, research, and policy. *The World Bank Research Observer* 2000;15(2):225–249.
- Zhan M. Assets, parental expectations and involvement, and children's educational performance. *Children and Youth Services Review* 2006;28(8):961–975.

Zhan M, Sherraden M. Assets, expectations, and children's educational achievement in female-headed households. *Social Service Review* 2003;77(2):191–211.

Table 1

Sample Socio-Demographic Characteristics

	Wave 1 Mean (SD) (N=286)	Wave 2 Mean (SD) (N=277)
Child age	13.68 (1.40)	
Gender (%)		
Girls	56.49	
Boys	43.51	
Number of other children in the household		3.24 (2.13)
Caregiver type (%)		
Parent		35.4
Grandparent(s)		30.7
Others		33.9
Sum of 5 types of gardens		3.72 (1.27)
Sum of 5 types of livestock		1.78 (1.19)
Knowledge of whether parent is saving for a child (%)		
No		63.8
Yes		36.2
Family cohesion		14.3 (2.14)
Relationship with an important adult		17.34 (2.93)
Youth group participation (%)		22.57
School Skipping (%)	29.3	23.3
Educational Plans After Secondary School (%):		
1. No plans	14.91	15.64
2. Vocational training	8.73	10.54
3. College School for a Diploma	14.18	10.54
4. University for a Degree	62.18	63.27
Primary Leaving Examination (PLE Score) (N=257).		27.1 (6.5)

Table 2

OLS Regression Models on Savings in CDAs and PLE

	Model 1 on PLE (N=244) ¹	Model 2 on Savings in CDAs (N=132) ²
	b (SE)	b (SE)
Constant	23.01 ***	2.23
	-5.8	-1.42
Child age	0.83 **	-0.04
	-0.3	-0.07
Child gender: Girls	0.78	0.49 *
	-0.85	-0.22
Number of children	-0.09	0.04
	-0.2	-0.04
Caregiver (Others)		
Parent	0.12	-0.22
	-0.98	-0.23
Grandparent(s)	1.32	-0.58 *
	-1.01	-0.26
Number of gardens	0.55 †	-0.16 *
	-0.32	-0.08
Number of livestock	-0.24	-0.04
	-0.35	-0.08
Know if your parent is saving for a child	-1.83 *	0.6 **
	-0.88	-0.21
Family cohesion	-0.21	0.01
	-0.2	-0.05
Relationship with an important adult	-0.18	0.15 ***
	-0.15	-0.04
Youth group participation	-3.1 †	0.37
	-1.81	-0.34
School skipping	1.85 †	
	-0.96	
Educational plan after secondary school	-0.87 *	
	-0.36	
F	3.83 ***	3.93 ***
df	13	11
Adjusted R ²	0.131	0.198
N	244	132

Note: Variables in parenthesis are reference. Numbers in parenthesis are standard error. All predictors are measured at Wave 1.

† $p \leq 10$;

*
 $p \leq .05$;

**
 $p \leq .01$;

 $p \leq .001$

¹ Model 1 was run on all study participants—both in the control and experimental condition with complete data on PLE (n=244)

² Model 2 was run only on participants in experimental group (n=132), because only children in experimental condition had an opportunity to save

Table 3

Social Support and Educational Plan

Model 3 on Education Plan			
	Odds Ratio	95% C.I.	
Threshold			
Plan 1	.96	−3.71	3.62
Plan 2	1.97	−2.98	4.34
Plan 3	3.53	−2.40	4.93
Child age	.92	−.27	.10
Child gender: girls	2.25 **	.28	1.34
Number of children	1.02	−.11	.15
Primary caregivers (Others)			
Parent	1.06	−.58	.69
Grandparents	.93	−.71	.57
Number of gardens	1.03	−.16	.23
Number of livestock	1.02	−.20	.24
School skipping	.54 *	−1.20	−.03
Educational plan at wave 1	1.40 **	.11	.56
Family cohesion	.96	−.17	.08
Relationship with an important adult	1.12 *	.03	.21
Knowledge of whether parent is saving for a child	1.03	−.53	.60
Youth group participation	3.16	−.33	2.63
Chi-square	42.12 ***		
df	13		
Nagelkerke R ²	.164		
N	236		

Note: Variables in parenthesis are reference.

*
p ≤ .05;

**
p ≤ .01;

p ≤ .001