Suubi4Her: A Combination Intervention Addressing HIV Risk Among Older Adolescent Girls Transitioning into Adulthood in Uganda

Baseline Study Report

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Disclaimers:

The content of this report is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute of Mental Health (NIMH) or the National Institutes of Health (NIH).

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1. EXECUTIVE SUMMARY

This baseline report presents the baseline (pre-intervention) survey data from the Suubi4Her study. The Suubi4Her is a five-year (2017 – 2022) longitudinal randomized control trial evaluating a combination intervention aimed at reducing HIV risk among adolescent girls (ages 14-17) in Uganda. A total of 1260 adolescent girls who met the inclusion criteria were enrolled in the study and they all completed screening and baseline interviews. Data was collected via a multidimensional survey instrument, which combines existing evidence-based measurement tools, as well as adapted scales and questions developed specifically for girls in sub-Saharan Africa (SSA).

The following are highlights of the key findings from the baseline survey data:

- **Household Characteristics:** We captured several demographic characteristics of enrolled adolescents. The average length of stay in the current household was 15 years. The average number of persons per household was 7 with 3.5 children below the age of 18 (excluding the respondent). At least 12.4% (n=156) of all respondents had lost their biological father, 5% (n=63) had lost their biological mother, and 53% (n=667) had lost at least a sibling. All participants were enrolled in the first or second year of lower secondary school (high school), per the inclusion criteria.

- **Community Background:** Respondents were asked to report the distance from their homes to community resources, including schools, health care centers, and water sources. More than half of respondents (57%, n=712) lived near their school, i.e. in walking distance, 81% (n=1015) lived close enough to a clinic or healthcare center, and 84% (n=1062) lived near a clean water source. In addition, 36.3% (n=457) indicated knowing the location of a formal financial institution or banking institution, but only 8.8% (n=111) reported having a bank in walking distance from their home. Respondents reported moderate satisfaction with the communities where they live (mean =30.4, actual range =13-40).

- **Family Relationship and Communication:** Family relationships were measured on a number of dimensions: family cohesion, perceived child-caregiver support, patterns of family care and relationships, and family communication. Respondents reported moderate levels of family cohesion (mean =26.6, SD=5.7, actual range = 7-35). The theoretical range for this scale is 7-35, with high scores indicating high levels of family cohesion. Similarly, the overall mean score on the perceived child-caregiver measure was 56.9 (SD=6.8, actual range=29-81); the theoretical range is 17-85, with high scores indicating higher levels of perceived caregiver support. High scores on the family care and relationship measure were reported (mean = 24.7 (SD = 4.3, actual range = 9-30).

The theoretical mean for this scale is 6-30, with high scores indicating high levels of family care and relationships. In terms of family communication, respondents reported often discussing and feeling comfortable discussing topics related to education and future plans with their caregivers. However, they reported being less comfortable discussing topics related to sexual risk-taking behaviors and substance use with their families.

- **Social Support and Social Participation:** In addition to family relationships, respondents were asked to report on their perceived social support from their social networks. Overall the results indicate moderate levels of social support from parents/caregivers, classmates, peers and teachers all combined. Specifically, on a scale with a possible/theoretical score between 30-150 (with higher scores representing higher levels of combined social support), the reported mean score was 115.9 (SD = 14.8, actual range = 73-150), corresponding to a moderate level of combined social support. However, the majority of respondents reported high levels of social participation within their families and community contexts, such as being allowed to invite friends to their homes (79.8%, n=1006), celebrating special occasions (96.9%, n=1222), and participating in leisure activities (69.3%, n=873).

- **Exposure to Violence:** We assessed exposure to various forms of physical and emotional violence in the past month. At least 41.8% (n=526) of respondents reported having been spanked, hit or slapped, 37.2% (n=469) reported being shouted, yelled and/or screamed at, and 37.5% (n=473) reported being belittled and labeled by names such as dumb, lazy or other belittling names in the past month. Moreover, the majority of respondents (62.8%, n=791) believed that physical punishment is an acceptable tool to bring up, raise, or educate a child properly. However, respondents also reported that their parents/caregivers use non-violent strategies to discipline them and their siblings, such as giving explanations about a wrong behavior and being given something else to do instead of getting punished.

- **Education Parameters:** Slightly over half of the respondents (51.2%; n=645) reported plans of completing secondary school and going onto the university to get a degree. Regarding educational resources, 96.7% (n=1218) reported that they had time devoted to reading their books on a daily basis, and 93.9 % (n=1183) reported having a quiet room and light to do their homework at home. Overall, out of a possible score ranging from 14-40, with higher scores reflecting higher degree of satisfaction, respondents reported high levels of school satisfaction (mean=34.93). Only 1.8% (n=23) of the respondents reported having experienced thoughts of dropping out of school due to lack of school fees and scholastic materials, harsh punishments, long distance to school and poor parental health. These respondents, however, did not drop out of school.

- **Family Socioeconomic Status:** Several measures of poverty, including availability of basic needs, household assets and food consumption, were assessed. The majority of respondents (93%, n=1172) owned more than two sets of clothes, and 62.9% (n=494) reported having at least two meals per day. More than half (58.9%, n=743) lived in houses made of bricks, iron sheets and cemented floors. In addition, the majority of participants' households owned their own homes, land, several gardens, livestock, means of transportation and small income generating businesses.

- **Saving:** We asked respondents whether they had personal savings. Results indicate that less than one third of respondents (24%, n=303) reported having money saved, either with their caregiver or in a formal financial institution. At least 43.7% (n=551) reported that their caregivers were saving money for them, and 40.7% (n=513) reported that their caregivers had an account in a formal financial institution. In addition, respondents rated the importance of saving for education and a family business highly; and felt more comfortable saving for education and buying some kind of revenue generating asset, such as livestock.

- **Menstruation Practices:** Respondents were asked several questions related to their menstruation experiences and the effect of menstruation on school participation. At baseline, 89.1% (n= 1123) of respondents reported having started their menstruation cycle. Among those 89.1% reporting having started menstruation, 1.6% (n= 18) reported missing school always, and 10.5% (n=118) reported missing school many/several times due to their menstrual cycle. Reasons for missing school include fear of staining their uniforms, fear of being made fun of, not having sanitary pads, pain, and feeling uncomfortable or tired during their cycle. In addition, several respondents reported negative beliefs about menstruation, such as menstruation means that someone is sick, menstrual blood contains dangerous substances, it is harmful to a woman's body if she runs or dances during her menstruation period, and girls should not leave home during their period. These reports point to the need for comprehensive reproductive health information for adolescent girls.

- **Mental Health:** Several measures of participant's mental health wellbeing were utilized. Overall, respondents reported high levels of self-concept, measured by the Tennessee Self-Concept Scale (mean = 80.8, actual range= 44-100), out of the possible theoretical range of 20-100; and high levels of self-esteem (mean = 34, actual range 16-40), measured by the Rosenberg Self-Esteem Scale (theoretical range = 10-40). Moreover, using the Beck Hopelessness Scale, we found that respondents reported lower levels of hopelessness (mean =4.6, actual range = 0-17), theoretical range of 0-20, with lower scores representing lower levels of hopelessness. We also find similar results using Beck's Depression Inventory (mean =18.47, actual range 0-58), out of the theoretical range of 0-58, with lower scores indicating lower levels of depressive symptoms.

- **HIV/AIDS Knowledge and Prevention Attitudes:** Respondents reported desirable HIV prevention attitudes. Using an HIV prevention measure that had been tested in prior studies, with a hypothetical range of 5 – 25, with higher scores indicating desirable attitudes regarding HIV prevention, the average score was 19.5. In addition, respondents were able to identify unsafe HIV transmission behaviors, including unprotected sex and sharing needles. However, they also labeled what are considered safe behaviors, such as touching a toilet as an HIV infected person, as unsafe. Moreover, respondents answered "true" or "unsure" to common myths, such as using birth control protects a woman from HIV and you can look at a person and tell if they have HIV. These inconsistencies point to a greater need for comprehensive and correct HIV-related information among adolescents.

- **Youth Risks and Sexual Behaviors:** Respondents were asked a range of questions related to cigarette, alcohol and marijuana use. Of the total sample, 1.2% (n=15) reported smoking cigarettes, 5.9% (n=74) reported drinking alcohol, more than a few sips, and 3 respondents had tried using marijuana. Regarding sexual behaviors, 3.3% (n=42) reported having engaged in sexual intercourse. Overall, reported sexual risk-taking intentions were low among respondents (mean =7.5, SD=3.74; actual range 5-25).

- **Biomarkers:** We collected biomarker data on HIV, sexually transmitted infections (Chlamydia, Gonorrhea, Trichomonas) and pregnancy. Of the total sample (N=1260), 0.63% (n=8) tested HIV positive, 0.56% (n=7) tested positive for Chlamydia, and 5.16% (n=65) tested positive for Trichomonas. No cases of Gonorrhea were reported. In addition, 1.11% (n=14) received positive HCG pregnancy test results. These data will be collected and compared over time to examine whether the Suubi4Her intervention is effective in protecting adolescent girls against these known risk factors.

Overall, the baseline survey data illustrates how adolescent girls currently view themselves, their families, their communities and their futures. These baseline data act as benchmarks from which change will be measured, at 12, 24 and 36-months-post intervention, between the usual care and treatment conditions.

2. SUUBI4HER: INTRODUCTION AND RATIONALE

Sub-Saharan Africa (SSA) remains the world's most affected region in the HIV epidemic; and a home to 71% of people living with HIV worldwide.[1] Girls account for 7 out of 10 new infections among adolescents (ages 15–19 years).[2] This gender disparity has increased the recognition that adolescent girls need more attention if we are to achieve an AIDS-free generation.

Being out-of-school is one of the key characteristics found to increase adolescents' and young women's vulnerability to HIV as it is associated with numerous risk factors, including age-disparate and transactional sex, early marriages, inconsistent condom use, and limited power in relationships – most significantly the ability to negotiate safe sex.[3-9]Alongside these risks exist mental health challenges associated with economically motivated sex (both age-disparate and transactional), which have been shown to have a bi-directional relationship with depression, low self- esteem, and anxiety for young women.[10,11] Moreover, higher depression among young women has been associated with co-factors of HIV risk.[12] Given the heightened risk for HIV infection in adolescent girls, there is an urgent need to address the complex and multilayered economic and psychosocial issues facing this population in SSA.

In many SSA countries, including Uganda, access to education remains strongly associated with household economic stability.[13] Lack of financial resources is the most commonly cited reason for why adolescent girls fail to attend school.[14-17] Moreover, cultural norms can be influential and families may feel pressure to prioritize male education when resources are scarce. Several traditions in SSA are passed down generationally and encourage stratification of gender roles, such as adolescent marriage and early childbearing, both of which can prompt separation from school for adolescent girls.[18-20]

At the same time, family economic stability influences the quality of family relationships where poverty adversely impact parent-child communication and involvement.[21-23] Studies have documented that strong positive connections and more open communication between a child and his/her primary caregiver can predict better mental health outcomes, delays in onset of sex, and better overall child adjustment.[24-29] Additionally, better parenting skills have been associated with adolescents having less susceptibility to peer pressure.[29, 30] Thus, supporting families with economic opportunities and strengthening family supportive processes may minimize risk taking behaviors, discourage school separation, and address mental health stressors, especially among adolescents living in low-resource settings.

Given the complex and multi-dimensional drivers of increased HIV risk among adolescent girls in SSA and the failure of most single interventions to significantly decrease these rates, investments in combination interventions are critical to provide an interdisciplinary, multi-level

response needed to reduce new HIV and STI infections in a way that single interventions alone have not yet been able. Against this backdrop, the Suubi4Her (also known as *Hope for Girls*) intervention pairs two innovative and evidence-based interventions together: an asset-based financial economic strengthening model, and a family strengthening approach to enhancing youth behavioral health via multiple family groups (MFGs), recognizing the possibility that mental health may be a critical component intersecting between poverty and HIV risk for young females.

This report is based on baseline data collected between July 2018 to February 2019, from 1260 adolescent girls participating in the Suubi4Her study, a 5-year (2017 – 2022) longitudinal randomized clinical trial funded by the National Institute of Mental Health (NIMH, Grant #: R01MH113486, PI: Fred M. Ssewamala, PhD).

3. SUUBI4HER: OVERVIEW AND METHODOLOGY

Guided by asset theory,[31,32] the Suubi4Her study is aimed at addressing the HIV risk behaviors among older adolescent girls transitioning into adulthood in Uganda. The rationale for pairing the two interventions (financial economic strengthening model and MFG), includes mounting evidence that youth cognitive and behavioral change is influenced by economic stability, while familial support and protective processes are needed to reinforce and maintain engagement in protective health behaviors. Our previous Bridges to the Future and Suubi studies – set in primary schools in Uganda, demonstrated increased economic security among families and improved self-reported sexual health protective behavior, and mental health functioning, with younger children reporting better mental health functioning.[33-36]However, the outcomes were obtained via self-reports from a younger population (average age 12 years). Whether similar outcomes would result if more objective measures of sexual behaviors (e.g., STI testing) were used is unknown. Moreover, the impact of economic strengthening for older girls transitioning into early adulthood, who are most vulnerable to HIV infection and poor mental health in this context is unknown.

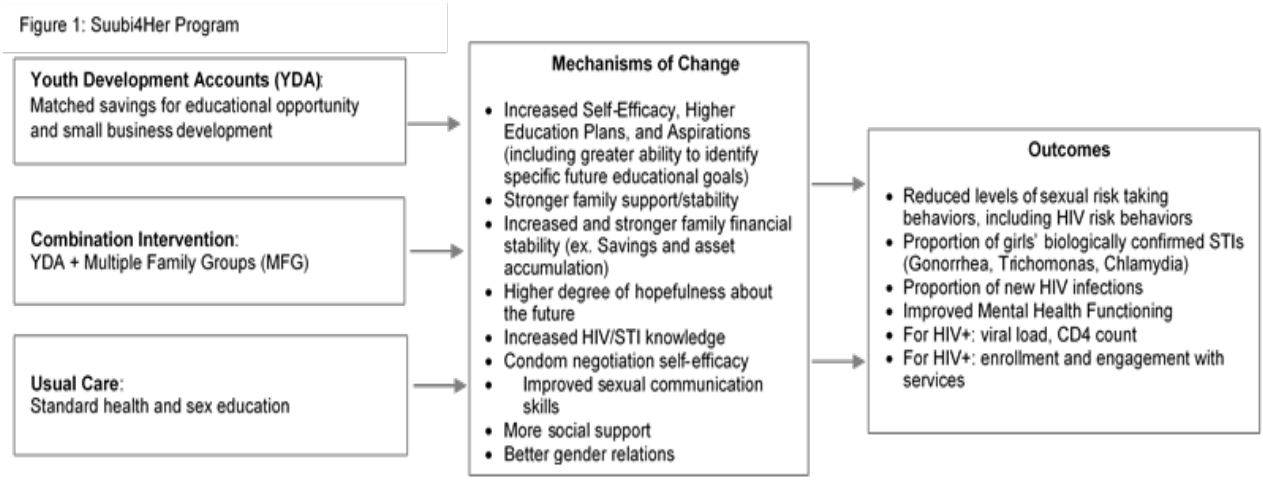
The Suubi4Her study was therefore designed to examine the impact and cost associated with an innovative combination intervention that aims to prevent HIV risk behaviors among older adolescent girls (14-17 years) living in communities heavily affected by poverty and HIV/AIDS in Uganda. The specific aims of the study are:

1. Examine whether the Suubi4Her intervention is effective in protecting adolescent girls against known HIV risk factors (including economically motivated sex and intimate partner violence).
2. Elucidate the effects of the Suubi4Her intervention on behavioral health functioning (i.e., depression, self-efficacy and hopelessness) and examine the effects of these variables as potential mechanisms of change, mediating the relationship between each intervention and HIV risk reduction.

3. Evaluate the cost-effectiveness of each intervention condition.

The mechanisms of change through which the intervention is hypothesized to impact adolescents' outcomes are presented in figure 3.1 below.

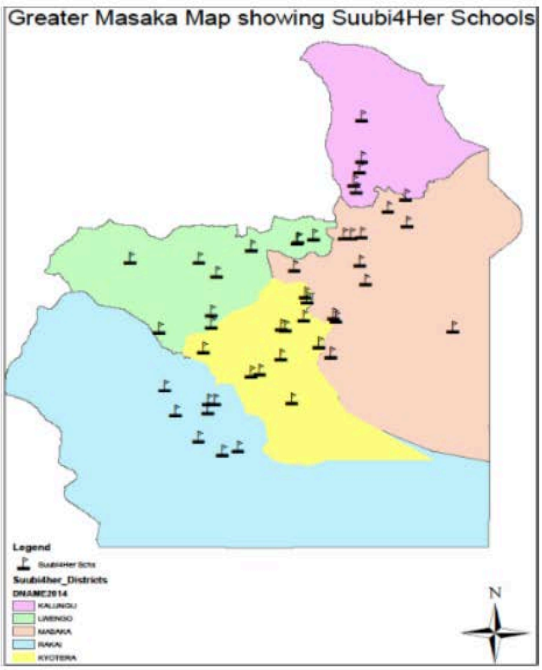
Figure 3.1 Suubi4Her Conceptual Model



Sample and Setting

A total of 1260 enrolled in lower secondary (high school) adolescent girls, between 14–17 years of age at study initiation, were enrolled in the study. Adolescents were eligible to participate if they met the following inclusion criteria: 1) female; 2) age 14–17 years, 3) enrolled in first or second year of secondary school, and 4) living within a family (broadly defined and not an institution or orphanage, as those in institutions have different familial needs). Adolescents were recruited from 47 secondary schools in five geopolitical districts of Rakai, Kyotera, Masaka, Lwengo and Kalungu, in southern western Uganda – a region heavily affected by HIV/AIDS.[37] The schools included in the study were matched on the following key features: socioeconomic status of the students attending these schools, school size (total number of students enrolled), location (urban vs. rural), and overall performance based on the Uganda Certificate of Education (UCE) examinations, administered by the Uganda Government's Ministry of Education and Sports. Figure 3.2 and 3.3 shows the study region in Uganda.

Figure 3.2 and 3.3 Map of Uganda and Suubi4Her Study Region



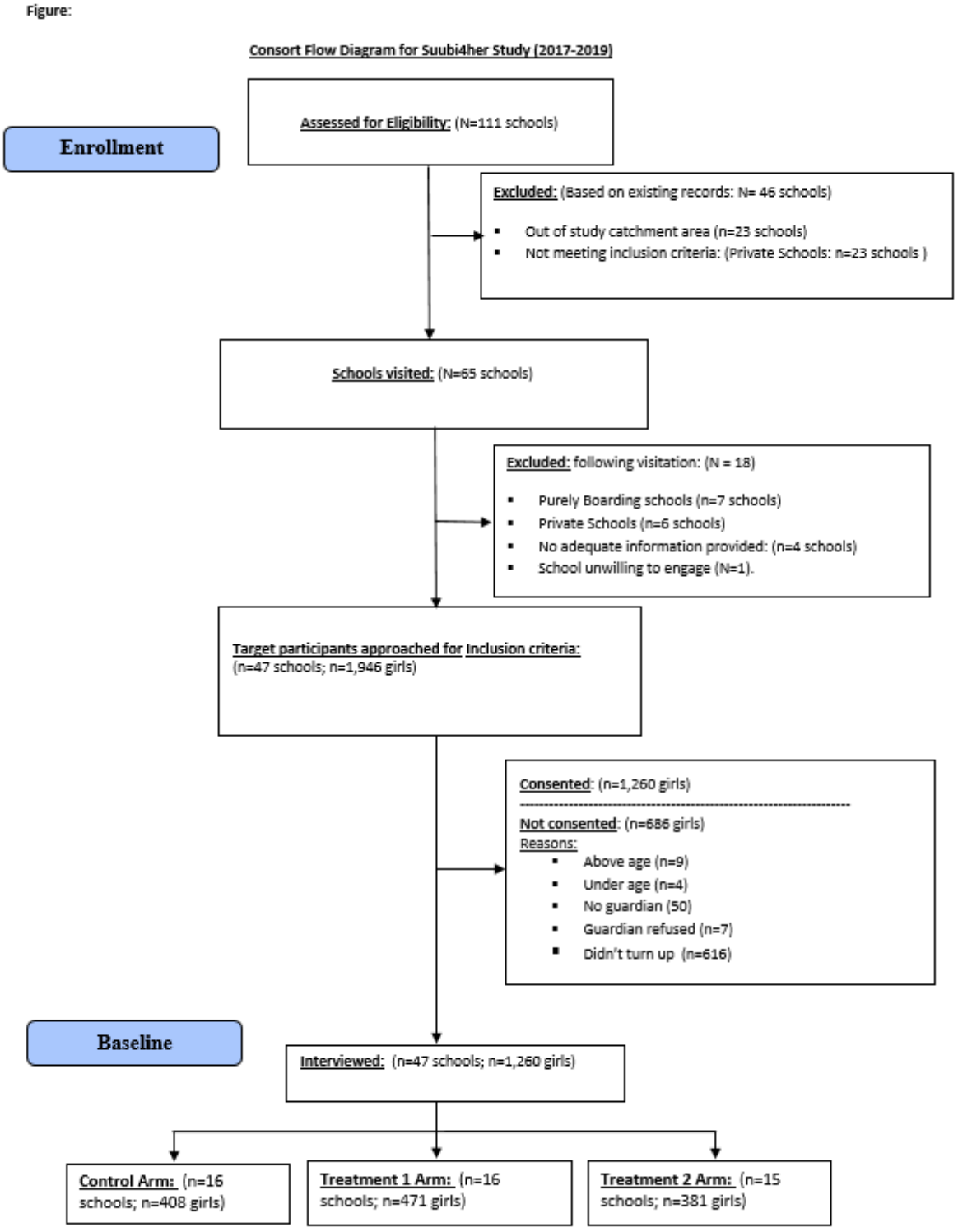
Recruitment and Selection

Recruitment procedures tested in our previous studies (Suubi+Adherence R01HD074949, Bridges to the Future R01HD070727 and Suubi Maka R34MH081763), were utilized in this study. Potential participants and their parents/caregivers were identified with the help of school administration and Masaka Diocese. Parents/caregivers were given flyers notifying them of the study and were invited to meet with the in-country project coordinator for a one-on-one informational meeting. During the meeting, parents/caregivers and adolescents were informed verbally and in writing, the purpose of the study, voluntary participation, extent of their participation, risk and benefits, as well as protection and confidentiality issues. Caregivers signed the informed consent and adolescent girls signed the assent forms. Details on recruitment, consent and enrollment are shown in Figure 3.4.

Human Subjects Protection

The Suubi4Her study received approval from the Washington University Institutional Review Board (IRB- #201703102), the Uganda Virus Research Institute (GC/127/17/07/619), and the Uganda National Council of Science and Technology (SS4406). The study is registered in the Clinical Trials database NCT03307226. Each interviewer received Good Clinical Practice training and obtained the Collaborative Institutional Training Initiative (CITI) Certificate before interacting with study participants.

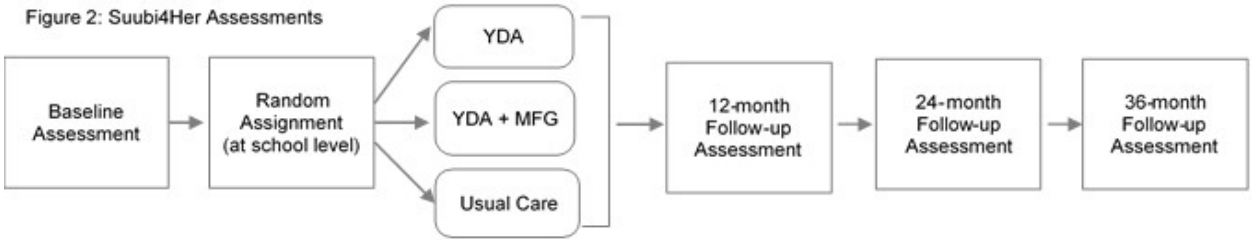
Figure 3.4 Suubi4Her Baseline Consort Flow Diagram



Study Design and Intervention Description

Suubi4Her will examine the impact and cost associated with an innovative combination intervention that aims to prevent HIV risk behaviors among older adolescent girls in Uganda. This goal will be achieved via a three-arm, cluster randomized control trial (RCT), consisting of two treatment arms and one control arm. Randomization was conducted at the school level to minimize cross-arm contamination. Specifically, stratified randomization of schools to conditions was used, with schools stratified into four strata based on two variables: 1) student population size (medium size vs. large), and 2) geographical location (rural vs. urban), to ensure balance on those variables. Each of the 47 secondary schools were randomly assigned to either the Control arm –bolstered standard of care (n=16 schools, 408 girls), or one of the 2 two treatment arms: Treatment 1 comprising of a family-based economic strengthening comprising of a youth development accounts (YDA) only (n=16 schools, 471 girls), or Treatment 2 comprising of YDA plus multiple family group (MFG) (n=15 schools, 381 girls). Figure 3.5 below shows the Suubi4Her study design.

Figure 3.5 Suubi4Her Study Design



Control Arm –Bolstered Standard of Care

Participants in the control arm receive what is referred to as the "usual care" of services offered to all adolescent children in the region. Specifically, in Uganda, an Adolescent Sexual and Reproductive Health curriculum is required of all secondary school students.[38] As such, these curricula are considered usual care, received by all enrolled participants, both in control and treatment conditions. The Adolescent Sexual Reproductive Health content is dispersed across a range of academic subjects in secondary schools. In each class, students receive information about sexual activity, HIV prevention, and gender studies relevant to that subject. Teachers and students all receive a sex and health education handbook. The content related to HIV and sexual risk-taking behaviors includes delaying sex; using condoms and contraception; preventing forced sex; and preventing substance abuse. This curriculum also includes education on gender equality and importance of delayed marriage. Prior to study implementation, the research team held induction meetings for all teachers involved in the study to ensure uniform delivery of the Ministry of Education approved sex education curriculum.

Treatment Arm 1 -Youth Development Accounts (YDA)
Adolescents in both treatment arms were enrolled in a 1:1 matched savings program at a financial institution accredited by the Bank of Uganda. Each account was opened in the name of the adolescent, with her primary caregiver as a co-signer, until she turns 18 years of age, at which time a co-signer will no longer be required. This is consistent with the Ugandan banking law which prohibits children below age 18 from independently entering into a binding contract and operating a bank account. The matching funds are kept in a separate account from the participants' own savings. When a girl is ready to pay for school fees, the check for the matching funds is written in the name of the school she attends or directly wired to the school's bank account. This process is intended to eliminate the risk of family pressure on the girl to withdraw money set aside for education and skills training.

Participating girls are allowed to use up to 30% of their total matched savings to invest in a family-based income-generating activity (IGA). The remaining 70% of the savings is restricted to fund the education and skills training of participating adolescent girls. Consistent with our earlier studies, a participant's access to the matching funds is conditional upon completion of financial management workshops during the intervention period. The workshops are implemented by a collaborating community agency, Reach the Youth-Uganda, in collaboration with the financial institutions holding the YDAs. The workshops consist of 4 sessions that cover basic principles of financial management including income generation, use of financial institutions, saving, and asset-building.

Treatment Arm 2 – Youth Development Accounts (YDA) + Multiple Family Group (MFG)
Participants in treatment arm 2 receive both the YDA (detailed above) and a family-based dialogue and training delivered via MFG, that aim to strengthen family relationships and address mental health challenges that commonly occur in adolescence. MFG is based on building support for families by providing opportunities for parents and children to communicate in a safe setting with other families who have shared experiences thus allowing each family to benefit from the contributions of one another.[39] Advice and insight from other families is often seen as less threatening than feedback given by a therapist.[39] In addition, MFG focuses on reducing stigma by normalizing shared experiences. The MFG intervention acknowledges poverty as a stressor that may undermine parenting while also recognizing the contextual challenges that contribute to poor mental health functioning for adolescent girls, including high rates of poverty, violence, and family loss due to HIV and other health threats.[40-42] The MFG approach allows adolescent girls and their families to share their experiences with others in similar situations, thus building hope by providing social support, normalization of similar experiences and struggles, and the sharing of effective solutions.[43]

The Suubi4Her MFG intervention curriculum, also known as *"Amaka Amasanyufu"* (meaning "Happy families" in Luganda language), is delivered by trained community health workers and parent peers, under the supervision of project staff. It offers the opportunity to learn basic skills related to rules, responsibilities, relationships, and respectful communication. When adolescents become aware of the qualities that contribute to the emotional health and well-being of them and their family, they can plan for their future with confidence and a positive outlook. The curriculum consists of the following sessions:

1. Introduction to Amaka Amasanyufu
2. Behavioral health knowledge, stigma and discrimination
3. HIV and STDs knowledge and prevention
4. Building on family strengths
5. Rules for home and problem solving for broken rules
6. Respectful communication
7. Responsibilities at home
8. Family relationships
9. Dealing with stress at home
10. Dealing with environmental stressors
11. Who can we turn to? Building support
12. Good family practices
13. Building families up
14. Everyone does their share to solve problems
15. Everybody gets a chance to be heard
16. Group review and ending celebrations

Data Collection

The Suubi4Her study has four assessment points: baseline, 12, 24 and 36-months follow-up (see details in Figure 3.5). This report is based on baseline data (pre-intervention). Data was collected using a 90-minute instrument administered by trained Uganda interviewers. The measures used were adapted, tested and refined in our earlier Bridges and Suubi studies in the region. [33-36, 44-47]Participants were assessed on a range of topics, including the following: family relationships and cohesion, community resources and satisfaction, social support, educational plans and aspirations, socio-economic status of the family, physical health, menstruation practice, depression, self-concept, hopelessness, self-efficacy, HIV/AIDS attitudes and knowledge, youth risk behaviors and savings outcomes. In the following sections, we provide participants' responses for each of these sections.

4. DEMOGRAPHIC CHARACTERISTICS

Table 4.1 shows the demographic characteristics of the study respondents who completed baseline interviews (N=1260). Respondents were between 14-17 years of age (mean age= 15.4 years). Of the total respondents, 62% (n= 785) self-identified as catholic and about 80% (n=1004) reported going to a place of worship almost every week.

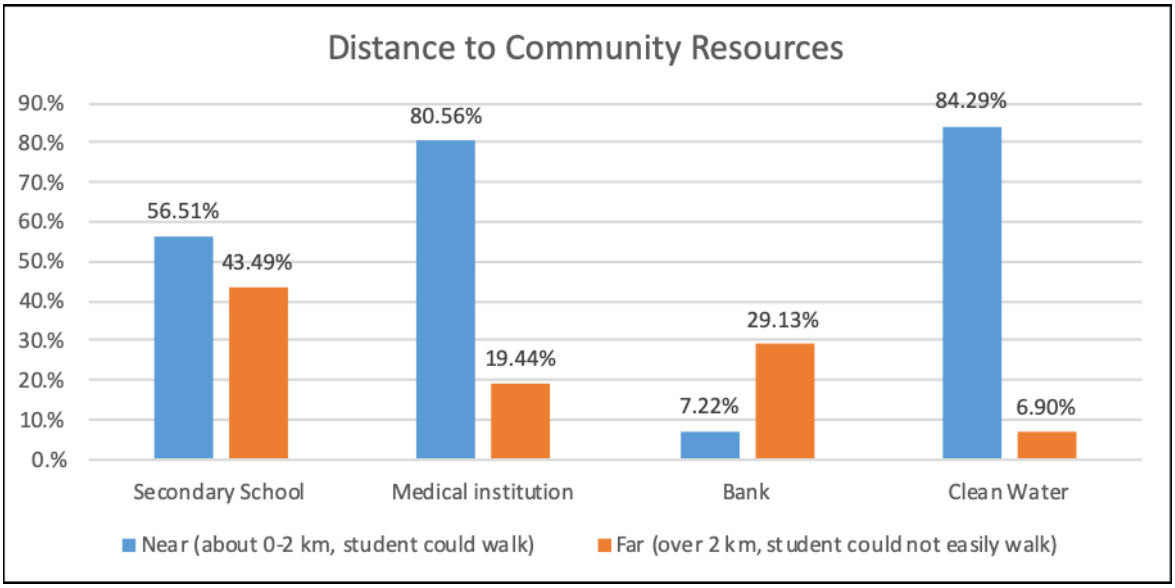
Table 4.1: Demographic Characteristics of the Study Sample (N=1260)

Variable	Frequency *n (%)*
Age	
14	200 (15.9)
15	518 (41.1)
16	416 (33.0)
17	126 (10.0)
Religion	
Catholic	785 (62.3)
Protestant	194 (15.4)
Muslim	174 (13.8)
Born Again/Saved	95 (7.5)
Not Religious	0 (0.0)
Other:	12 (0.1)
Seventh Day Adventist	11 (0.9)
Messianic Kingdom	1 (0.1)
Number of Times Respondent Attends Church/Mosque	
Almost Every Week	1004 (79.7)
Less Than Once a Week but More Than Just Holidays	217 (17.2)
Just on Holidays	26 (2.1)
Almost Never	13 (1.0)

5. COMMUNITY BACKGROUND

Respondents were asked several questions about their communities, including resources available to them, how far away these resources were from their homes, and how they felt about their communities. Specific community resources include secondary school (respondent's school), health care institution, bank and nearest water source. Distance was assessed by asking respondents to choose between two different options; *near* (about 0-2 km, one could walk), or *far* (over 2 km, one could not easily walk). Figure 5.1 shows how far respondents in the Suubi4Her study lived from designated community resources. For individual response data for this figure see Appendix Table A.1.

Figure 5.1 Distance to Community Resources (N=1260)



The majority of respondents live near their school (56.5%, n=712) in walking distance, health center or clinic (80.6%, n=1015), and have access to a clean water source (84.3%, n=1062). About 36.3% (n=457) of respondents indicated knowing the location of a formal financial institution or banking institution, but only 8.8% (n=111) reported having a bank in walking distance from their home. This is not uncommon, since banks tend to have branches in major towns, and the study respondents mainly reside in rural communities.

Community Satisfaction

Respondents' community satisfaction was assessed using 8 items adapted from the Multidimensional Students Life Satisfaction Scale (MSLSS).[48] The MSLSS was designed to provide a multidimensional profile of children's life satisfaction across key domains, including school, family, friends and community/living environment. Respondents were asked to rate how satisfied they were with their community/living environment, on a 5-point Likert scale with the following response options: 1= *never*, 2=*sometimes*, 3=*about half the time*, 4= *most of the time*, and 5=*always*. The theoretical range of this scale is 8-40 with higher scores indicating higher levels of community satisfaction. For this scale, 3 items were reverse-coded to create summated scores. The overall mean score was 30.4 (SD=5.4), actual range =13-40, indicating moderate levels of community satisfaction among respondents at baseline. The scale demonstrated a moderate internal consistency (Cronbach's alpha = 0.57). Table 5.1 presents the mean scores and standard deviations for each item and the overall mean score of the community satisfaction scale. For individual response data for this scale see Appendix Table A.2.

Table 5.1 Community Satisfaction (N=1260)

Statement	Mean (SD)
I like where I live	4.1 (1.2)
I wish I lived in a different house*	4.2 (1.2)
I wish I lived in another village*	4.1 (1.3)
I like my village	3.8 (1.4)
I like my neighbors	3.8 (1.3)
This village is filled with not nice people*	3.6 (1.4)
My family's house is nice	3.5 (1.5)
There are a lot of fun things to do where I live	3.4 (1.4)
Total Mean Score	**30.4 (5.4)**
Range	**13-40**

*Item has been reverse-coded, so that higher scores represent higher levels of community satisfaction

Despite high levels of poverty in the study region, respondents seem to be satisfied with certain aspects of their communities. Specifically, respondents gave favorable ratings for "I like where I live" (mean =4.1, SD=1.2), "I wish I lived in a different house" (mean =4.2, SD=1.2*), and "I wish I lived in another village" (mean= 4.1, SD=1.3*). Items with slightly low ratings were related to community recreation, i.e. "There are a lot of fun things to do where I live" (mean = 3.4, SD=1.4), and quality of their family, i.e. "My family's house is nice" (mean=3.5, SD=1.5).

6. FAMILY BACKGROUND

Questions in this section were tested in our previous Bridges and Suubi studies. Participants were asked several questions about their current households, including length of stay with their current family, the total number of people –both adults and children living in the household, number of children of school-going age who attend school, number of children of school-going age who do not attend school, and reasons why those children do not attend school. The results are presented in Table 6.1.

At baseline, the majority of respondents had lived in their current households or with the current family for about 15 years. The total number of people in the household ranged between 2-31. On average, respondents lived in households with 7 children below the age of 18 (range = 1-13). The majority of children of school-going age attended school. For those who did not attend school, reasons for non-school attendance include lack of money for school fees and school-related expenses, need to find work, lack of interest in continuation of education, failure to pass the exams, health issues, and lack of schools in the nearby areas. Responses are presented in Table 6.2.

Table 6.1. Family Background I (N=1260)

Variable	Frequency *n (%)*
For how long (years and/or months) have you lived at your current home or with your current family?	
≤1	181 (14.4)
2	53 (4.2)
3	49 (3.9)
4	41 (3.3)
5	49 (3.9)
6	40 (3.2)
7	37 (2.9)
8	34 (2.7)
9	24 (1.9)
10	51 (4.0)
11	20 (1.6)
12	30 (2.4)
13	29 (2.3)
14	110 (8.7)
15	225 (20.2)
16	206 (16.3)
17	49 (3.9)
Don't know	1 (0.1)
Missing	1 (0.1)
How many people currently live in your household?	
2	22 (1.7)
3	73 (5.8)
4	112 (8.9)
5	172 (13.7)
6	193 (15.3)
7	194 (15.4)
8	188 (14.9)
9	105 (8.3)
10	95 (7.5)
11	50 (4.0)
12	18 (1.4)
13	16 (1.3)
14	9 (0.7)
15	5 (0.4)
16	2 (0.2)
17	1 (0.1)
18+	5 (0.5)

Table 6.1 Continued

Besides you, how many of the people who live in your household are children?	Frequency *n (%)*
0	76 (6.0)
1	140 (11.1)
2	227 (18.0)
3	226 (17.9)
4	215 (17.1)
5	170 (13.5)
6	100 (7.9)
7	59 (4.7)
8	28 (2.2)
9	10 (0.8)
10	3 (0.2)
11	3 (0.2)
12	2 (0.2)
13	1 (0.1)
Mean (SD)	**7(2.71)**
How many of the children in the household, not including you, age five and older, attend school?	
0	38 (3.0)
1	186 (14.8)
2	299 (23.7)
3	248 (19.7)
4	193 (15.3)
5	113 (9.0)
6	61 (4.8)
7	28 (2.2)
8	10 (0.8)
9	5 (0.4)
10+	3 (0.3)
Not applicable	76 (6.0)
How many of the children in the household, not including you, age five and older do not attend school?	
0	1081(85.8)
1	76 (6.0)
2	18 (1.4)
3	6 (0.5)
4	1 (0.1)
5	1 (0.1)
6	1 (0.1)
Not applicable	76 (6.0)

Table 6.2 Family Background II (N=103)

For the children who do not attend school, why don't they attend school?	Yes *n (%)*	No *n (%)*
Failed to pass the exam	6 (0.5)	97 (7.7)
Not interested in continuation of education	6 (0.5)	97 (7.7)
Can't afford to pay for tuition	60 (4.8)	43 (3.4)
School is too far	1 (0.1)	102 (8.1)
Lack of school uniform/shoes	5 (0.4)	98 (7.8)
Did not like school	0 (0.0)	103 (8.2)
Did not like teachers	0 (0.0)	103 (8.2)
Did not like children there	0 (0.0)	103 (8.2)
Have to work	5 (0.4)	98 (7.8)
Have to take care of my siblings/parent	0 (0.0)	103 (8.2)
Don't know	9 (0.7)	94 (7.5)
Still too young to attend school	15 (1.2)	88 (6.9)
Have health issues	2 (0.2)	101 (8.0)
Other	1 (0.1)	102 (8.1)

Family of Origin

In addition to family background, respondents were asked to provide information on their families of origin, i.e. information about their biological parents. Given that the study area has been greatly affected by the HIV/AIDS epidemic, it was imperative to assess the proportion of participants who are orphans i.e. lost a biological father or mother, or both, as well as siblings. Of the total respondents, 12.4% (n=156) had lost their biological father and 5% (n=63) had lost their biological mother. Regarding child mortality, 53% (n=667) of respondents had lost at least one sibling or more; with malaria reported as the main cause of death, followed by witchcraft, and the lack of medical care. The results are presented in Table 6.3 below.

Table 6.3 Family of Origin (N=1260)

Variable	Frequency *n (%)*
Is your mother still alive?	
Yes	1185 (94.0)
No	75 (6.0)
Is your father still alive?	
Yes	1096 (86.9)
No	164 (13.0)
Have you lost any of your siblings?	
Yes	667 (52.9)
No	593 (47.1)

7. FAMILY RELATIONS

All items measuring family relations were adapted from the Family Environment Scale (FES) [49] and Family Assessment Measure (FAM)[50] and were tested in our previous Bridges and Suubi studies. [33-36, 44-47] Family relationships were measured on a number of dimensions: 1) family cohesion, 2) patterns of family care and relationships, 3) family communication assessed by frequency of conversation with a caregiver on specific topics and level of comfort discussing such topics with a caregiver, 4) perceived child -caregiver support, and 5) willingness to talk.

Family Cohesion

Family cohesion was measured using 7 items that assess the degree of commitment, help, and support that family members provide to one another. Respondents were asked to rate how often each item occurred in their family, on a 5-point Likert scale, with 1=*never*, 2=*sometimes*, 3=*about half of the time*, 4=*most of the time*, and 5=*always*. The theoretical range for this scale is 7-35, with high scores indicating higher levels of family cohesion. In this study, the average score was 26.6 (SD=5.7, actual range = 7-35), indicating moderate levels of family cohesion. The scale had a high reliability coefficient (Cronbach alpha = 0.72). High scores were reported

on specific items related to love from family members (mean=4.1, SD =1.2), family closeness, such as doing things together as a family (mean=3.9, SD =1.2), and spending free time with each other (mean=3.9, SD =1.3). Table 7.1 presents the mean scores and standard deviations for each item, and the overall mean score of the family cohesion scale. Individual response is presented in Table A.3 of the Appendix.

Table 7.1 Family Cohesion (N=1260)

Statement	Mean (SD)
Do your family members ask each other for help before asking non-family members for help?	3.7 (1.4)
Do your family members like to spend free time with each other?	3.9 (1.3)
Do your family members feel close to each other?	3.8 (1.3)
Are you available when others in the family want to talk to you?	3.4 (1.4)
Do you listen to what other family members have to say, even when you disagree?	3.7 (1.4)
Do you do things together as a family?	3.9 (1.2)
Do you think that your family members love you?	4.1 (1.2)
Total Mean Score	**26.6 (5.7)**
Range	**7- 35**

Family Care and Relationships

Family care was measured using 6 items related to things that parents/caregivers sometimes do with their children. Respondents were asked to rate how often each item occurred in their family, on a 5-point Likert scale, with 1=*never,* 2=*sometimes,* 3=*about half of the time,* 4=*most of the time,* and 5=*always*. The theoretical range for this scale is 6-30, with high scores indicating higher levels of family care and relationships. Four items in the inverse direction were reverse-coded to create summated scores. The modified scale had a modest reliability (Cronbach alpha = .60). Table 7.2 presents the mean scores and standard deviations for each item and the overall mean score of the scale. Individual response data are presented in Table A.4 of the Appendix.

The overall mean score was 24.7 (SD = 4.3, actual range = 9-30) indicating high levels of family care and relationships at baseline. High scores were reported on items related to basic needs, i.e. respondents were less likely to report going without enough food to eat (mean = 4.4, SD =1.2), clean water (mean = 4.2, SD =1.3), medicine (mean = 4.2, SD=1.2), as well as scholastic materials (mean = 4.1, SD =1.2). Despite high levels of poverty in the study region, families seem to provide at least the basic needs and school needs for their children.

Table 7.2 Family Care and Relationships (N=1260)

Statement	Mean (SD)
Do your parent(s)/guardians take time to listen to you when you want to talk to them?	3.9 (1.3)
If you have a problem, how often do your parents/guardians offer to help?	3.9 (1.2)
Over the past 3 months, how often have you gone without enough food to eat? *	4.4 (1.2)
Over the past 3 months, how often have you gone without enough clean water? *	4.2 (1.3)
Over the past 3 months, how often have you gone without medicine? *	4.2 (1.2)
Over the past 3 months, how often have you gone without school expenses for fees, uniforms or books? *	4.1 (1.2)
Total Mean Score	**24.7 (4.3)**
Range	**9-30**

*Item has been reverse-coded, so that higher scores represent higher levels of family care and relationships.

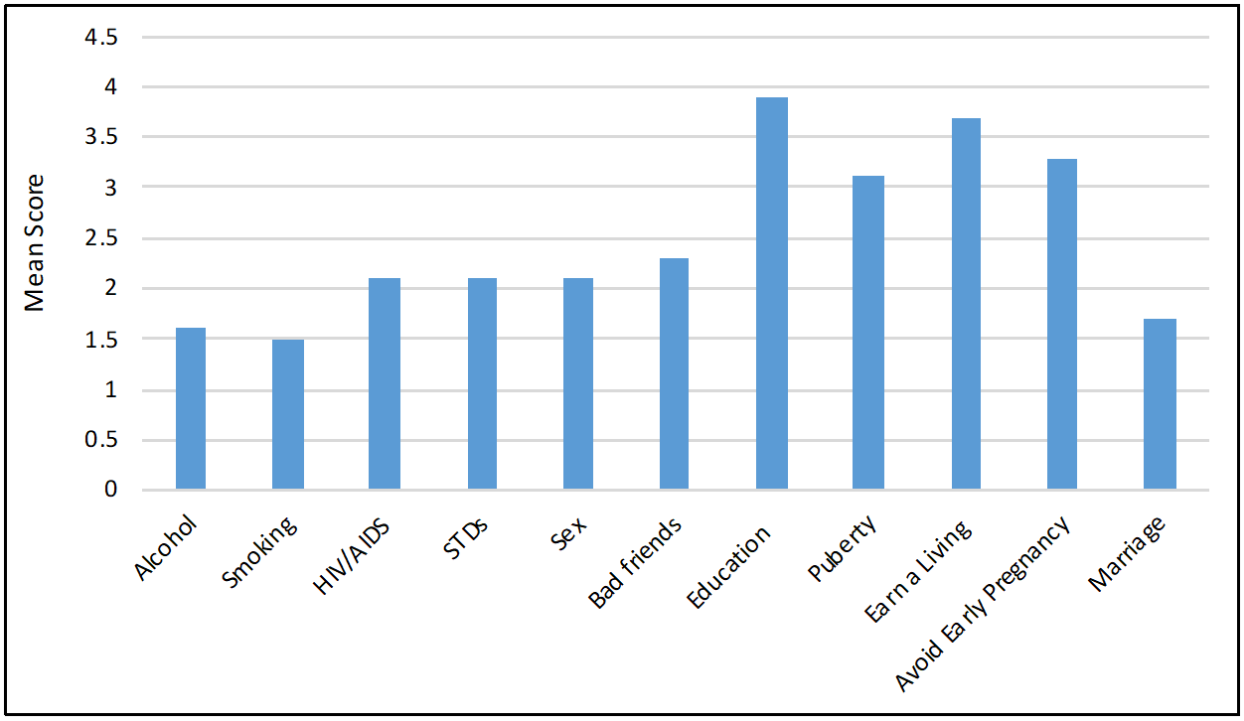
Family Communication

Items measuring family communication were adapted from Krauss's interview.[53] Two dimensions of family communication were measured: 1) frequency of conversation with caregiver about certain topics such as puberty, HIV/AIDS, having sex, education, and future plans, among others; and 2) level of comfort discussing these topics with caregiver.

Frequency of Conversation with Caregiver

Respondents were asked to indicate how often they discussed 11 specific topics with their caregiver. Responses were rated on a 5-point Likert scale, with 1=*never*, 2=*sometimes*, 3=*about half of the time*, 4=*most of the time*, and *always*. The theoretical range for this scale is 11-55, with higher scores indicating high communication frequency levels. At baseline, the scale had a high reliability coefficient (Cronbach Alpha =0.81). The overall mean score was 27.3 (SD = 9.0, actual range =11-55), indicating moderate levels of communication frequency with the caregiver. The mean scores for each item are presented in Figure 7.1. Individual response data is presented in Table A.5 of the Appendix.

Figure 7.1 Frequency of Conversation with Caregiver on Specific Topics (N=1260)



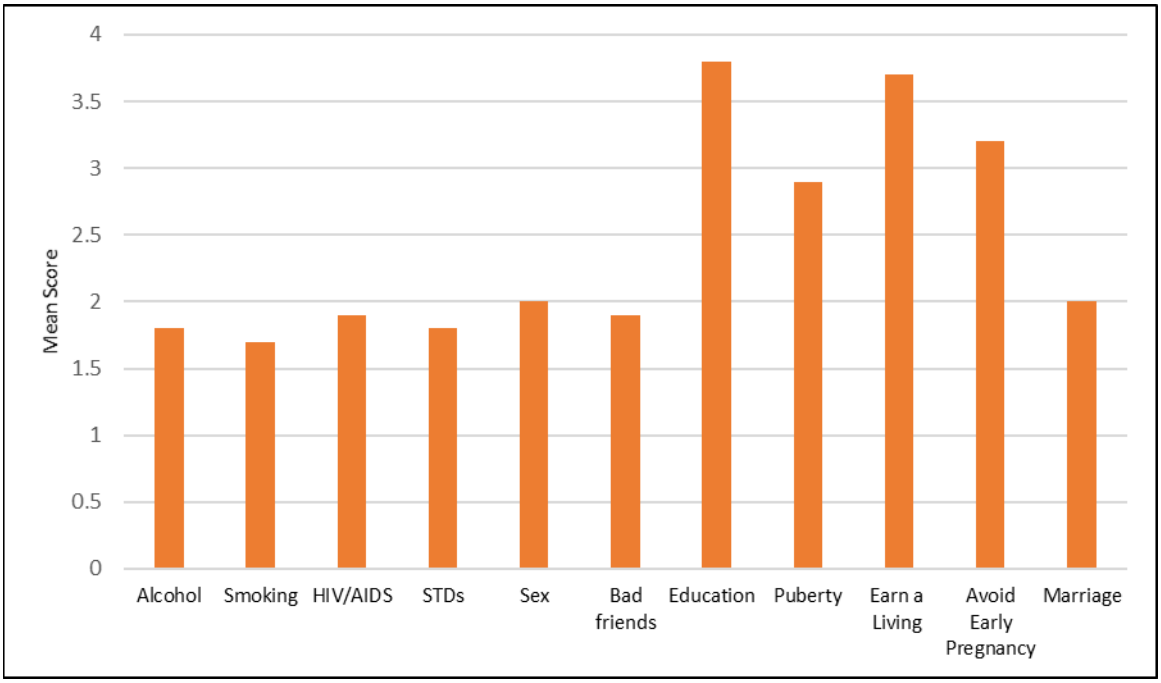
As presented in Figure 7.1 above, discussions in the home between respondents and caregivers varied widely by topic. Respondents reported that they often discussed topics related to education, how to earn a living in the future and how to avoid early pregnancy. However, when it came to topics related to sexual risk taking (including STDs, having sex, HIV/AIDS and getting pregnant) and substance use (alcohol, cigarettes), respondents reported discussion much less frequently. Indeed, individual response data in Table A.5 of the Appendix indicates that 60% (n=742) of respondents reported "never" discussing having sex, 50% (n=633) reported "never" discussing STDs, and 55% (n=693) reported "never" "discussing" HIV/AIDS with their caregivers. For substance use, 72.2% (n=910) of respondents reported "never" discussing alcohol use and 79.7% (n=1004) reported "never" discussing cigarette use with their caregivers.

Level of Comfort Discussing Specific Topics with Caregiver

Respondents were also asked to rate how comfortable they felt talking to their caregivers about the above specific topics. Responses were rated on a 4-point scale, with 1=*very uncomfortable*, 2=*somewhat uncomfortable*, 3=*somewhat comfortable*, and 4=*very comfortable*. The theoretical range for this scale is 11-44, with high-summated scores indicating high comfort levels of communication with a caregiver. At baseline, the scale had a high reliability coefficient (Cronbach's alpha =0.84). The overall mean score was 26.9 (SD = 6.9, actual range 11-44), indicating moderate comfort levels communication with a caregiver on specific topics. Figure

7.2 presents the mean scores for each item. Individual response data is presented in Table A.6 of the Appendix.

Figure 7.2 Level of Comfort Discussing Specific Topics with Caregiver (N=1260)



Consistent with frequency of conversation, respondents were also less comfortable discussing topics that are traditionally considered sensitive, such as those related to engaging in risk-taking behaviors (HIV/AIDS, STDs, sex) and substance use (alcohol use and cigarette smoking). On the other hand, respondents felt more comfortable discussing topics related to education, future planning and how to avoid early pregnancy – topics more frequently discussed with caregivers.

Perceived Child-Caregiver Support

Items measuring perceived child-caregiver support were adapted from Social Support Behaviors Scale (SS-B) scale.[54] Respondents were asked to rate the adults they live with, on a 17-item scale. Responses were rated on a 5-point Likert scale, with 1= *never*, 2 = *sometimes,* 3=*about half of the time*, 4=*most of the time*, and 5= *always*. Items in the inverse direction were reverse-coded to create summated scores. The theoretical range for this scale is 17-85, with high summated scores indicating high levels of perceived support from caregivers. The scale had a high reliability coefficient (Cronbach alpha =0.78). Table 7.3 presents the mean scores and standard deviations for each item and the overall mean score of the scale. Individual response data is presented in Table A.7 of the Appendix.

Table 7.3 Perceived Caregiver Support (N=1260)

Statement	Mean (SD)
Can you count on your current parent(s)/ guardian(s) to help you out, if you have a problem?	4.1 (1.2)
Do your current parent(s)/guardian(s) say that you shouldn't argue with adults? *	2.2 (1.3)
Do your current parent(s)/guardian(s) keep challenging you to do your best in whatever you do?	4.2 (1.0)
Do your current parent(s)/guardian(s) say that you should give in on arguments rather than make people angry? *	2.7 (1.5)
Do your current parent(s)/guardian(s) keep challenging you to think independently?	2.4 (1.5)
Do your current parent(s)/guardian(s) show interest in your work (whatever you do)?	4.1 (1.1)
Do your current parent(s)/guardian(s) show interest in your homework?	3.9 (1.2)
Do your current parent(s)/guardian(s) tell you that their ideas are correct and that you should not question them? *	3.7 (1.5)
When your current parent(s)/guardian(s) wants you to do something, do they explain why?	3.6 (1.4)
Whenever you argue with your current parent(s)/guardian(s), do they say things like, "You'll know better when you grow up"? *	3.6 (1.5)
Do your current parent(s)/guardian(s) let you make your own plans for things you want to do?	2.1 (1.4)
Do your current parent(s)/guardian(s) know who your friends are?	3.4 (1.5)
Do your current parent(s)/guardian(s) act cold and unfriendly if you do something they don't like? *	2.6 (1.5)
Do your current parent(s)/guardian(s) spend time just talking with you?	3.7 (1.3)
When you make a mistake, do your current parent(s)/guardian(s) make you feel bad about it? *	2.9 (1.5)
Do your current parent(s)/guardian(s) do things for fun together as a family?	3.6 (1.4)
Do your current parent(s)/guardian(s) stop you from doing things with them when you do something they don't like? (e.g. stop talking to you for some-time, spending time with you, etc.). *	3.9 (1.4)
Total Mean Score	**56.9 (6.8)**
Range	**29-81**

*Item has been reverse-coded, so that higher scores represent higher perceived caregiver support.

The overall mean score was 56.9 (SD=6.8, actual range=29-81) indicating moderate levels of perceived caregiver support among respondents at baseline. Respondents scored highly on items related to warmth and acceptance, such as counting on a caregiver's help in case of a problem (mean =4.1, SD=1.2), challenging the child to always do the best (mean =4.2, SD=1.0), and caregiver showing interest in child's work (mean =4.1, SD=1.1). Respondents scored lower on

items related to psychological autonomy, such as a caregiver saying child shouldn't argue with adults (mean = 2.2, SD=1.3), and caregiver allowing child to make their own plans for things they want to do (mean =2.1, SD =1.4).

Willingness to Talk

Respondents were asked to reflect back on their relationships with their caregivers in the last school term and indicate whether they had talked to them about issues related to school, their future, romantic relationships, and whether they would talk to someone if they were faced with a specific problem. Results are presented in Table 7.4 below.

Table 7.4 Willingness to Talk with Caregivers (N=1260)

Statement	Yes *n (%)*	No *n (%)*
Talked to your current parent(s)/guardian(s) about your schoolwork?	1157 (91.8)	103 (8.17)
Asked your current parent(s)/guardian(s) to help you with your homework?	878 (69.7)	382 (30.3)
Talked to your current parent(s)/guardian(s) about your future plans?	977 (77.5)	283 (22.5)
Would you talk to someone if you had a problem with your schoolwork?	1154 (91.6)	106 (8.41)
Would you talk to someone boy/girl wanted to be your romantic boy/girlfriend?	957 (75.9)	303 (24.1)
Would you talk to someone if your friends wanted you to skip school?	1114 (88.4)	146 (11.6)

Majority of respondents 91.8% (n=1157) had talked to their caregivers about schoolwork, 69.7% (n=878) had asked their caregivers for help with homework, and 77.5% (n=977) had talked to their caregivers about their future plans. Regarding willingness to talk, 91.6% (n=1154) of respondents would talk to someone if they had a problem with school work, 75.9% (n=957) would talk to someone about romantic relationships, and 88.4% (n=1114) would talk to someone if their friends asked them to skip school. Given that respondents are willing to talk about issues and seek help, it provides a window of opportunity to strengthen family functioning, as well supportive networks for adolescent girls.

8. SOCIAL SUPPORT

Social Relationships

Items in this section were tested in our previous Bridges and Suubi studies. [33-36, 44-47] Social support was measured using 30-items adapted from the Friendship Qualities Scale.[55] The scale assesses the impressions of the quality of children's friendships and relationships with their classmates, peers, teachers and parents. Respondents were asked to rate how each statement applied to them. Responses were rated on a 5- point Likert scale, with 1=*never*, 2=*sometimes*, 3=*about half of the* 4=*most of the time*, and 5= *always*. The theoretical range for this scale is 30-150, with high scores indicating higher levels of social support and relationships. This modified scale had a high reliability coefficient (Cronbach's alpha =0.81). Eighteen items in the inverse direction were reverse-coded to generate summated scores. Table 8.1 presents the mean scores and standard deviations for each item, the overall mean score of each subscale, and the grand mean for the entire scale. Individual response data are presented in Table A.8 of the Appendix.

Table 8.1 Social Relationships (N=1260)

Statement	Mean (SD)
Parent/Guardian	
Some youth have parent(s) or guardian(s) who don't really understand them. *	4.3 (1.2)
Some youth have parent(s) or guardian(s) who don't seem to want to hear about their children's problems. *	4.2 (1.2)
Some youth have parent(s) or guardian(s) who care about their feelings.	3.7 (1.4)
Some youth have parents or guardians who treat their children like a person who really matters.	3.9 (1.2)
Some youth have the current parent(s) or guardian(s) who like them the way they are.	3.7 (1.4)
Some youth have the current parent(s), or guardian(s) who don't act like what their children do is important. *	3.8 (1.4)
Total Mean Score	*23.7 (4.2)*
Range	*9-30*
Classmates	
Some youths have classmates who like them the way they are.	2.9 (1.5)
Some youths have classmates that they can become friends with.	3.4 (1.4)
Some youths have classmates who sometimes make fun of them. *	4.1 (1.2)
Some youths have classmates who pay attention to what they say.	3.5 (1.4)
Some youths don't get asked to play games with classmates very often. *	3.9 (1.3)
Total Mean Score	*17.8 (3.5)*
Range	*7-25*

Teachers	
Some youths have a teacher who helps them if they are upset.	3.4 (1.4)
Some youths don't have a teacher who helps them do their best*	4.1 (1.2)
Some youths do have a teacher who cares about them.	3.6 (1.4)
Some youths don't have a teacher who is fair to them. *	4.1 (1.2)
Some youths don't have a teacher who cares if they feel bad. *	3.9 (1.3)
Some youths have a teacher who treats them like a person.	3.8 (1.3)
Total Mean Score	*22.8 (4.2)*
Range	*10-30*
Friends/peers	
Some youth have a close friend who they can tell problems to.	3.5 (1.4)
Some youth have a close friend who really understands them.	3.1 (1.5)
Some youth have a close friend who they can talk to about things that bother them.	3.4 (1.4)
Some youth don't have a close friend who they like to spend time with. *	3.9 (1.2)
Some youth don't have a close friend who really listens to what they say. *	3.9 (1.3)
Some youth often spend holidays being alone. *	3.9 (1.3)
Some youth don't have a close friend who cares about their feelings. *	3.9 (1.3)
Some groups of youth hit people. *	4.4 (1.1)
Sometimes youth, even friends, are hurting other youth. Somewhere like: at home, at school, out playing, or somewhere else. *	4.1 (1.2)
Sometimes youth, even friends, try to hurt other youth's private parts on purpose by hitting or kicking them there. *	4.4 (1.1)
Sometimes youth, even friends, pick on other youth by chasing or grabbing or by making them do something they don't want to do. *	4.4 (1.1)
Sometimes youth are scared or feel really bad because other youth are calling them names, saving mean things to them, or saying they do not want them around. *	4.0 (1.2)
Sometimes, even boyfriend or girlfriend slap or hit their romantic partner. *	4.5 (0.9)
Total Mean Score	*51.6 (7.6)*
Range	*26-65*
Grand Mean Score	**115.9 (14.8)**
Range	**73-150**

*Item has been reverse-coded, so that higher scores represent higher social relationships.

The overall mean score was 115.9 (SD=14.8, actual range=73-150). Within the parent/guardian subscale, respondents scored highly on having parents/guardian who understands them (mean=4.3, SD =1.2), and parent (s)/guardian who want to hear about their child's problems (mean= 4.2, SD=1.2). For items related to classmates, statements rated highly as not applying to respondents were having a classmate who likes to make fun of them (mean= 4.1, SD =1.2), and not getting asked to play games with other classmates (mean =3.9, SD =1.3).

Within the teacher subscale, having a teacher who helps the child do their best was highly rated by respondents (mean= 4.1, SD=1.2), as well as having a teacher who treats child fairly (mean= 4.1, SD = 1.2). Finally, for items related to friends and peers, respondents scored highly on having friends who care about their feelings (mean=4.4, SD =1.1), and items related to experiencing peer violence, i.e. participants indicated that these statements did not apply to them: friends try to hurt other youth's private parts on purpose by hitting or kicking them there (mean= 4.4, SD=1.1), friends pick on other youth by chasing or grabbing or by making them do something they don't want to do (mean=4.4, SD=1.1), and boyfriend or girlfriend slap or hit their romantic partner (mean=4.5, SD=0.9).

Social Participation

Social participation was assessed using 4 items that measure the relationship between the child's perception of participation in the family and community context and their subjective well-being. Items have a "Yes" or "No" response coded as "1" or "0" respectively. Responses are presented in Table 8.2 below. Overall, participants reported high levels of social participation, such as being allowed to invite friends to their homes (79.8%, n=1006), celebrate special occasions (96.9%, n=1222), and participate in leisure activities (69.3%, n=873). However, less than half of participants (41.4%, n=522) reported not being allowed to participate in community events – which is not uncommon for families in the study area to protect and limit social engagements for adolescent girls.

Table 8.2 Social Participation (N=1260)

Statement	Yes *n (%)*	No *n (%)*
Are you allowed from time to time to invite friends home to play and eat?	1006 (79.8)	254 (20.2)
Are you allowed to celebrate special occasions such as birthdays, name days, religious events, etc.?	1222 (96.9)	38 (3.02)
Are you allowed to participate in community events such as ceremonies?	522 (41.4)	738 (58.6)
Are you allowed to do any leisure activities (swimming, playing an instrument, participating in youth organizations etc.)?	873 (69.3)	387 (30.7)

Non-Kin Support Networks

Non-kin support networks – defined as relationship ties not based on blood or marriage were measured using 5 items, previously tested in the Bridges and Suubi studies.[46] Participants were asked to name up to 5 people besides their biological parents, caregivers, relatives and the Suubi project, who provided them or their families with any kind of support. These may include neighbors, friends, school, faith-based organizations, groups or organizations in their communities. After identifying these individuals or groups, participants were asked to provide addition information on each, including relationship to respondent, how long they have been

receiving support from this source, number of times they are in contact per month, and the kind of support received.

At baseline, 17% (n=216) of respondents reported support from a non-kin individual or group in their community. These included community-based organizations, friends, political leaders, neighbors, church leaders, teachers, and other community members. Support received included material support, financial, in-kind and emotional support. The limited number of supportive non-kin are consistent with our previous findings among children orphaned by HIV/AIDS in the same regions.[46] In addition to non-kin support networks, 8.17% (n=103) respondents reported being involved in community programs in their villages/communities at baseline.

9. PROTECTION FROM VIOLENCE

Protection from violence was measured using 12 items adapted from the Multiple Indicator Cluster Survey (MICS) for children ages 5-17. [56] Respondents were asked about the methods that adults in their households have used to teach them and their siblings the right behaviors and/or address behavioral problems in the past month. Items were binary coded as 1 = "Yes" and 0= "No." The results are presented in Table 9.1.

Respondents reported being exposed to various forms of physical and emotional violence by their parents/caregivers in the past month. About 41.8% (n=526) reported being spanked, hit, slapped on bottom with bare hand, 37.5% (n=469) reported being shouted, yelled, screamed at, and 37.5% (n=473) reported being belittled and called dumb, lazy or other names, and 25.9% (n=327) reported being hit with a belt, hairbrush, stick or other hard object. On the other hand, respondents reported that their parents/caregivers also use non-violent strategies to discipline them and their siblings. More than half of the respondents 64.4% (n=812) reported getting explanations about a wrong behavior, 61.7% (n=777) reported being given something else to do, instead of being punished. However, majority of the respondents 62.8% (n=791) also believed that physical punishment is an acceptable tool to bring up, raise, or educate a child properly.

Table 9.1 Protection from Violence (N=1260)

Adult in the household has used this method on the respondent/sibling to teach right behaviour	Yes *n (%)*	No *n (%)*
Took away privileges	200 (15.9)	1060 (84.1)
Explained wrong behaviour	812 (64.4)	448 (35.6)
Shook him/her	127 (10.1)	1133 (89.9)
Shouted, yelled, screamed	469 (37.2)	791 (62.8)
Gave something else to do	777 (61.7)	483 (38.3)
Spanked, hit, slapped on bottom with bare hand	526 (41.8)	734 (58.3)
Hit with belt, hairbrush, stick or other hard object	327 (25.9)	933 (74.1)
Called dumb, lazy or another name	473 (37.5)	787 (62.5)
Hit / slapped on the face, head or ears	225 (17.9)	1035 (82.1)
Hit / slapped on hand, arm or leg	264 (20.9)	996 (79.1)
Beat up, hit over and over as hard as one could	138 (10.9)	1122 (89.1)
Do you believe that in order to bring up, raise, or educate a child properly, the child needs to be physically punished?	791 (62.8)	469 (37.2)

10. EDUCATION PARAMETERS

School Satisfaction

Items assessing respondents' school satisfaction were adapted from the Multidimensional Students Life Satisfaction Scale (MSLSS). [57] These items were tested in the previous Bridges and Suubi studies.[33-34, 44-47,51,52] Respondents were asked to rate 8 items on a 5- point scale, with 1=*never*, 2=*almost never*, 3=*sometimes*, 4=*often* and 5=*almost always*. The theoretical range for this scale is 8-40, with higher scores indicating higher levels of school satisfaction. Three items in the opposite direction were reverse-coded to create summated scores. This modified scale had a modest reliability coefficient (Cronbach's alpha = 0.65). The overall mean score was 34.93 (SD =3.81, range = 14-40) representing high levels of school satisfaction. Table 10.1 presents the mean score and standard deviations for each item. Individual response data are presented in Table A.9a of the Appendix.

Table 10.1 School Satisfaction (N=1260)

Variable	Mean (SD)
I look forward to going to school each day.	4.63 (0.61)
I like being in school.	4.63 (0.59)
School is interesting.	4.43 (0.81)
I wish I didn't have to go to school. *	4.56 (0.99)
There are many things about school I don't like. *	3.57 (1.26)
I enjoy school activities.	4.19 (0.93)
I learn a lot at school.	4.42 (0.80)
I feel bad at school. *	4.50 (1.05)
Total Mean Score	**34.93 (3.81)**
Range	**14-40**

*Item has been reverse-coded, so that higher scores represent higher school satisfaction

Pediatric Quality of Life Inventory (PEDSQL)

Pediatric Quality of Life Inventory was assessed using four items adapted from the Pediatric Quality of Life Inventory (PEDSQL).[58] The original instrument has 23 items and is used to measure health-related quality-of-life in children and adolescents. Items were rated on a 5-point Likert scale, with *1=never, 2=almost never, 3=sometimes, 4=often and 5=almost always*. Table 10.2 below shows the total mean score for the 4 items was 14.2 (SD =3.18). Individual response data is presented in Table A.9b of the Appendix.

Table 10.2 Pediatric Quality of Life Scale (N=1260)

Statement	Mean (SD)
It is hard for me to pay attention in class. *	3.97 (1.48)
I am forgetful. *	3.55 (1.19)
I miss school because of poor physical health condition. *	3.39 (1.28)
I miss school to go to the doctor, clinics or hospital. *	3.27 (1.32)
Total Mean Score	**14.2 (3.18)**
Range	**4-20**

*Item has been reverse-coded, so that higher scores represent higher quality of life.

School-Related Questions

In addition to school satisfaction, respondents were asked several questions related to their experiences in school, including grade level, school accessibility and living arrangements (i.e. whether they lived in boarding sections), behavioral issues while attending school, any extra help they receive at school, and school-related challenges and goals.

The majority of the respondents 95.2% (n=1199) were in senior 1 (first year of high school) and 4.8% (n= 61) were in senior 2 (second year of high school). About 37% (n= 468) of respondents had repeated a grade in the past, between 1-4 times, mainly during primary-level schooling. About 97.8% (n= 1232) of respondents reported that their school had a boarding section, and 20.2% (n= 255) of these respondents reported living in the boarding section. This is not unusual since boarding sections come at an additional cost, as such, low-income families are less likely to afford this type of living arrangement for their children. In addition, 73.7% (n=929) of respondents reported walking daily to their school from home, and 6.03% (n=76) used other modes of transportation, including bicycle (n=25), motorcycles/boda boda (n=45), or a vehicle/taxi/school bus (n=6).

To assess school-related behavioral issues, respondents were asked about verbal and physical altercation incidences with other students and teachers, as well as suspensions and expulsions during the last school term. About 4.4% (n=56) of respondents reported physical fights, and 23.3% (n=293) reported verbal fights with other students. In addition, 4 respondents reported verbal altercations, and only 1 respondent reported a physical fight with a teacher respectively. There were no reported cases of suspension or expulsion from school in the last term.

Respondents were also asked to identify the achievements they were most proud of in the previous school term. More than one third 33% (n=416) reported no proudest achievements, and 17.4% (n=219) reported that they were most proud of performing well in class. Other achievements reported were related to good behavior, helping out at home, participating in extracurricular activities in school, and starting small income-generating activities. In addition, 12.7% (n=160) of respondents reported belonging to a youth group/club during the last school term.

Thoughts of Dropping Out of School

Respondents were asked if they had ever considered dropping out of school during the previous school term. About 1.8% (n=23) of respondents reported that they had experienced thoughts of dropping out of school, ranging between 1 to 30 times during the last school term. Of these, 12 respondents reported that they couldn't afford to pay tuition/school fees, 3 of them did not have school uniform/shoes, 4 had experienced harsh punishments i.e. had been hit/beaten by teachers, 1 respondent reported that the school was too far, 1 reported that their parent/guardian thought school was not important, and 1 reported poor parent's health. When asked why they did not drop out of school, responses included the following: secured sufficient financial resources to pay for school fees, transferred to another school, parent/caregiver changed their mind about the importance of education and staying in school, or parent's health got better.

Missing School

Respondents were asked several items related to how often they missed school in the last four weeks. Responses were rated on a scale of 0 (*never missed school*) to 10+ (*miss school very often*). The results are presented in table 10.3. About 10% (n=126) of respondents reported difficulty getting to school at least twice a month. More than half of respondents (54.2%, n=683) did not miss school in the last four weeks. Among those who missed school, 11.75 (n=147) reported missing school at least 2 days in the previous 4 weeks. Reasons for missing school varied from illness, menstruation cycle, and lack of school-related fees.

Table 10.3 School Absenteeism (N=1260)

Variable	Frequency n (%)
It can often be difficult to get to school every day, even when you are trying your hardest.	
0 (never missed)	855 (67.9)
½	47 (3.7)
1	126 (10.0)
2	86 (6.8)
3	33 (2.6)
4	18 (1.4)
5	19 (1.5)

6	9 (0.7)
7	6 (0.5)
8	8 (0.6)
9	10 (0.8)
10	35 (2.8)
10+ (miss school very often)	8 (0.6)
Number of days missed school in the last four weeks.	
0 (never missed)	683 (54.2)
½	25 (2.0)
1	118 (9.4)
2	147 (11.7)
3	100 (7.9)
4	42 (3.3)
5	46 (3.7)
6	13 (1.0)
7	29 (2.3)
8	7 (0.6)
9	9 (0.7)
10	28 (2.2)
10+ (miss school very often)	13 (1.0)
In a month, how many days do you miss school because of illness?	
0 (never missed)	661 (52.5)
½	54 (4.3)
1	121 (9.6)
2	145 (11.5)
3	88 (7.0)
4	58 (4.6)
5	35 (2.8)
6	14 (1.1)
7	25 (2.0)
8	7 (0.6)
9	7 (0.6)
10	29 (2.3)
10+ (miss school very often)	16 (1.3)
Number of days missed school due to menstruation period.	
0 (never missed)	975 (77.4)
½	26 (2.1)
1	43 (3.4)
2	41 (3.3)
3	55 (4.4)
4	42 (3.3)
5	14 (1.1)
6	9 (0.7)
7	15 (1.2)
8	9 (0.7)
9	3 (0.2)

10	20 (1.6)
10+ (miss school very often)	8 (0.6)
Number of days missed school due lack of school-related fees.	
0 (never missed)	653 (51.8)
½	42 (3.3)
1	113 (9.0)
2	125 (9.9)
3	62 (4.9)
4	39 (3.1)
5	57 (4.5)
6	20 (1.6)
7	48 (3.8)
8	14 (1.1)
9	10 (0.8)
10	45 (3.6)
10+ (miss school very often)	32 (2.5)

Availability of Educational Resources

There are several factors that contribute to a conducive learning environmental, both at home and at school. Participants were asked to answer 4 questions related to the availability of educational resources. Responses were coded as 1 = *Yes* and 0= *No*. Responses are presented in Table 10.4. The majority of respondents 96.7% (n=1218) reported that they had time devoted to reading their books on a daily basis, and 93.9 % (n=1183) reported having a quiet room and light to do their homework. In addition, 36% (n=454) reported having non-school-related books they read in their spare time, and 65.2% (n=822) reported participating in school trips.

Table 10.4 Education Resources (N=1260)

Variable	Yes *n (%)*	No *n (%)*
On a daily basis, do you have time that you devote to reading books?	1218 (96.7)	42 (3.33)
Do you have books (not including schoolbooks) you can read in your spare time?	454 (36.0)	806 (63.9)
Do you have a quiet place with enough room and light to do your homework?	1183 (93.9)	77 (6.11)
Do you participate in school trips and events?	822 (65.2)	438 (34.8)

Education Plans

Questions in this section were tested in our previous Bridges and Suubi studies. Respondents were asked several questions about their future educational plans, including professions of interest, completing high school, how confident they were in their ability to achieve those plans, and alternative plans to educational attainment. When asked what they wanted to be when they

completed school, the most common professions reported by respondents were nursing 34.6% (n=435), teaching 22.9% (n=288), medical practitioner 21.1% (n=265), and accounting 3.1% (n=39). Other professions reported include both those offered in formal and informal training/vocational institutions, ranging from engineering, decoration, hair dressing, tailoring, and performing arts.

Respondents were asked about their educational plans after completing lower secondary school (senior 4) (Table 10.5). More than half of respondents (51.2%, n=645) planned to go on to high secondary level (senior 5 and 6) and then to university. About 23.3 % (n=292) planned to go to high secondary level and then go to technical/nursing/teachers' college, and 14.9% (n=188) planned to stop in senior 4 and find a job within their community. Respondents were then asked to report on how sure and hopeful they were that they will achieve their set educational plans. Only 11.8% (n=149) reported being *"very sure"* about their plans, and 42.6% (n=537) reported that they were *"extremely sure."* Similarly, about 26.7% (n=336) reported being *"very hopeful"*, and over one third (36.3%, n=456) reported that they were *"extremely hopeful"* about achieving their educational plans.

Given life's challenges and obstacles, respondents were asked to identify what other plans they had, in case they were unable to achieve their educational plans. The majority of respondents (60.7%, n=765) reported that they would persist to the end of their education, 30% (n= 379) reported that they would look for a job to support themselves, and 0.6% (n=7) reported that they would give up and opt for marriage. Other plans identified by participants include going to vocational training and sitting at home.

Table 10.5 Future Educational Plans (N=1260)

Variable	Frequency n (%)
What are your educational plans after completing senior 4?	
Planning to go on to HSC (Senior 5 and 6), then University	645 (51.2)
Planning to go on to HSC (Senior 5 and 6), then go to Technical/Nursing/Teachers college	292 (23.2)
Planning to stop in Senior 4, then find a job and start working	188 (14.9)
Not planning to go on to Senior 4	18 (1.4)
Other (Specify)	8 (0.6)
Planning to stop in Senior 4, then go to Technical/Nursing/Teaching college	109 (8.7)
How sure are you that you will achieve this educational plan?	
Not at all sure	92 (7.3)
Slightly sure	211 (16.7)
Moderately sure	253 (20.1)
Very sure	149 (11.8)
Extremely sure	537 (42.6)
Not applicable	18 (1.4)
How hopeful are you that you will achieve your educational goals?	
Not at all hopeful	16 (1.3)
Not very hopeful	32 (2.5)
Somewhat hopeful	402 (31.9)
Very hopeful	336 (26.7)
Extremely hopeful	456 (36.2)
Not applicable	18 (1.4)
What plans do you have for your future in case attaining education fails?	
I will give up and opt for marriage	7 (0.6)
I will give up and sit at home	20 (1.6)
I will look for a job to support myself	379 (30.1)
I will persist to the end of my education	765 (60.7)
Other (specify)	71 (5.6)
Not applicable	18 (1.4)

11. FAMILY SOCIO-ECONOMIC STATUS

Poverty

Questions in this section were adapted from the Uganda Household Survey[59] conducted by the Uganda Bureau of Statistics. All questions have been tested in our previous Bridges and Suubi studies. Respondents were asked several questions to assess their relative level of poverty. Items related to the availability of basic needs, food consumption, household assets, and living arrangements were asked. Table 11.1 presents results related to possession of basic needs and food consumption.

The majority of the respondents 93% (n=1172) owned more than two sets of clothes, 88.9% (n=1120) owned a blanket, and 41.5% (n=523) owned more than two pairs of shoes. In terms of food consumption in the last week, 54.6% (n=690) of respondents, on average, had two meals per day, 38.5% (n=485) had not eaten meat or fish, 57.7% (n=727) had not eaten an egg, and 54.6% (n=688) had not had milk. However, 60.7% (n=765) had drank tea with sugar in the last week, and 75% (n=945) had eaten breakfast the day of baseline assessment.

Table 11.1 Poverty Indicators (N=1260)

Variable	Frequency *n (%)*
How many sets of clothes do you have?	
None	5 (0.4)
One	22 (1.8)
Two	61 (4.9)
More than two	1172 (93.0)
Do you have a blanket?	
Yes	1120 (88.9)
No	140 (11.1)
How many pairs of shoes do you have?	
None	10(0.79)
One pair	355 (28.2)
Two pairs	372 (29.5)
More than two pairs	523 (41.5)
How often did you eat meat or fish in the last week?	
None	485 (38.5)
Once	284 (22.5)
Twice	235 (18.7)
Three times	179 (14.2)
Every day	77 (6.1)
How often did you eat an egg in the last week?	
None	729 (57.7)
Once	251 (19.9)
Twice	134 (10.6)
Three times	99 (7.9)
Every day	47 (3.7)

How often did you have milk in the last week?	
None	688 (54.6)
Once	138 (10.9)
Twice	100 (7.9)
Three times	65 (5.2)
Every day	269 (21.4)
What is the average number of meals you took per day in the last 7 days?	
None	11 (0.9)
One	104 (8.3)
Two	690 (54.6)
Three	455 (36.1)
In the last seven days, how many times did you drink tea with sugar?	
None	176 (13.9)
One	72 (5.71)
Two	121 (9.60)
Three	126 (10.0)
Everyday	765 (60.7)
Did you have breakfast today?	
Yes	945 (75.0)
No	315 (25.0)

In addition to basic needs and food consumption, respondents were asked several questions related to their living arrangements, including type of housing, availability of electricity and other facilities. The results are presented in Table 11.2. The majority of respondents (69%; n=870) lived in households with electricity, more than half (58.9%; n=743) reported that their houses were made bricks, iron sheets and cemented floors, and 62.9% (n=795) reported that their houses had cemented floors. The average number of rooms per house was 3.7 (SD=1.7; range 1-24), with an average of 5.84 person per room. In addition, the majority of participants' households (98.7%; n=1243) had a toilet facility, with 97.6% (n=1230) reporting a pit latrine. About 84.3% (n= 1062) of respondents' households used firewood to cook.

Table 11.2 Household Facilities (N=1260)

Statement	Frequency *n (%)*
Does the house you live in have electricity (including solar or biogas)	
Yes	870 (69.1)
No	390 (30.9)
What kind of house do you live in?	
Brick house with iron sheets and cement floors	743 (58.9)
Brick house with iron sheets but not cemented floors	344 (27.3)
Mud house	92 (7.3)
Hut	3 (0.2)
Muzigo	78 (6.2)
What is the floor in your house where you live?	
Dirt sand	38 (3.02)
Dung floor	406 (32.2)
Tiled floor	19 (1.5)
Cement floor	793 (62.9)
Other	4 (0.3)
Do you have a toilet facility?	
Yes	1243 (98.7)
No	17 (1.4)
What kind of toilet facility do your family members use?	
Pit latrine	1230 (97.6)
Flush or pour-flush toilet	19 (1.5)
No facility or bush or field	5 (0.4)
Other	6 (0.5)
How do you/your family cook?	
Wood	1062 (84.3)
Charcoal	179 (14.2)
Dung	2 (0.2)
Other	17 (1.4)

Household Assets

Respondents were also asked about household assets. Responses are presented in Table 11.3. Most participants' families (93.9%, n=1184) owned their own homes, 91.4% (n=1151) owned a piece of land, and 58% (n=732) owned a bicycle –primarily used as a means of transportation. The majority of households (82.4%, n=1038) owned a radio, and 94.6% (n=1192) owned a cellphone. In addition, respondents were asked whether they personally owned a cellphone (separate from the households), 1.03% (n=13) reported that they owned a phone, and 0.2% (n=2) reported that they owned a smartphone. Given that Uganda's economy is primarily agricultural, the majority of households owned several gardens, including bananas, coffee, beans and maize, as well as farm animals such as cows, goats, and pigs.

These are usually supplemented by small scale income generating activities. In our sample, 15.9% (n=201) of households owned rental property, 41% (n=514) owned poultry for sale, and 62.7% (n=790) owned a small business.

Table 11.3 Household Assets (N=1260)

Variable	Yes *n (%)*	No *n (%)*
House	1184 (93.9)	76 (6.03)
Rental property /mizigo gya bapangisa	201 (15.9)	1059 (84.1)
Land / ekibanja	1151 (91.4)	109 (8.6)
Bicycle	732 (58.1)	528 (41.9)
Motorcycle /boda boda	461 (36.6)	799 (63.4)
Car	160 (12.7)	1100 (87.3)
Television	436 (34.6)	824 (65.4)
Refrigerator	107 (8.5)	1153 (91.5)
Cell phone	1192 (94.6)	68 (5.40)
Radio	1038 (82.4)	222 (17.6)
Banana garden	1056 (83.8)	204 (16.2)
Coffee garden	815 (64.7)	445 (35.3)
Beans garden	786 (62.4)	474 (37.6)
Maize garden	911 (72.3)	349 (27.7)
Other gardens (cassava, sweet potato, greens)	910 (72.2)	350 (27.8)
Cow (s)	376 (29.9)	884 (70.2)
Goat (s)	615 (48.8)	645 (51.2)
Pig (s)	758 (60.2)	502 (39.8)
Poultry (for sale)	514 (40.8)	746 (59.2)
Any other animals	246 (19.5)	1014 (80.5)
A small business/retail store/shop/kiosk	790 (62.7)	470 (37.3)

Child Work

Questions in this section were tested in our previous Bridges and Suubi studies. Child work was assessed by asking participants to indicate whether they were currently engaged in work for pay, the type of jobs, number of hours they worked, and type of earnings or compensation. At baseline, about 4.1% (n=51) were currently engaged in work for pay, and 7.1% (n=89) engaged in paid work in the previous year. About 0.4% (n=5) of respondents reported having two jobs.

Among those who reported work in the previous year, 2.4% (n=30) worked almost every day, 2.5% (n=31) worked for few days a week, 0.32% (n=4) worked almost every week, 1.4% (n=17) worked once in a few weeks, and 0.6% (n=7) worked on a particular incidence. Respondents primarily worked in garden/farm work or housework, either for a neighbor or family members. In addition, 84 out of the 89 respondents who reported work for pay in the last year, received monetary compensation. They used the money to purchase basic needs and pay for education.

Respondents were also asked how many hours per day they worked outside of schoolwork (including housework). On average, respondents worked 2.8 hours (mean =2.8, range= 0.5 -12 hours) per day. About 63% (n=794) reported that their siblings also participate in income-generating jobs, including part-time jobs. Outside the home, respondents normally engage in activities such as vending, craftsmanship, baby-sitting, farming, and retail businesses. Of the total respondents, 11.4 % (n=144) reported that engaging in work (including housework) for more than 4 hours affects their studies at school.

The Person Supporting the Family

Respondents were asked to provide details on the person supporting their family, including their relationship to the participant, employment status, and education level. About 49.7% (n= 626) of respondents reported a biological father as their primary caregiver, 26.9% (n= 339) reported a biological mother, and about 8.5% (n= 107) reported a grandmother. Similarly, more than half of respondents (52.3%, n= 659) reported a biological father as the primary source of financial support, and 24.4% (n= 308) reported a biological mother. Other individuals included grandmother 6% (n= 76), grandfather 2.3% (n= 29), aunt 3.9% (n= 49), uncle 4.9% (n= 62), sister 1.4% (n= 18), brother 1.8% (n= 22), and other relatives 2.5% (n= 32). In addition, the majority of respondents (76.8%, n= 968) reported that the person who financially supported them was not employed in the formal sector (i.e., did not earn a wage or salary). About 44.3% (n= 558) reported farming as their primary source of income.

In addition to employment, respondents were asked about the educational level of the person financially supporting their household. More than half of respondents (64.2%, n=809) reported that the person who financially supported them had not completed high school, 3.2% (n=40) had a technical college diploma, 4.6% (n=58) had a university degree, and 3.6% (n=45) did not go to school. About 24.4% of respondents did not know the educational background of their caregivers.

12. SAVING BEHAVIORS

Questions in this section were tested in our previous Bridges and Suubi studies. Respondents were asked several questions regarding their saving behaviors, attitudes, and savings goals. At baseline, 24% (n=303) of respondents reported that they had money saved somewhere. The average savings amount was 6,534 Uganda shillings (an equivalent of USD $1.76). Participants kept their savings in a range of places (Table 12.1). Specifically, 3.6% (n=11) of respondents reported saving their money in a bank, 42.9% (n=130) reported keeping their money with a caregiver(s)/parent(s), 11.9% (n=36) saved with a Savings and Credit Cooperative (SACCO), and 48.8% (n=148) reported saving in another informal location such as piggy bank, with a friend, neighbor or other relative, a family saving group, or some place in the house.

Table 12.1 Savings locations (N=303)

Variable	No n (%)	Yes n (%)
Do you have money saved in any of the following places?		
Bank	292 (96.4)	11 (3.6)
Savings and Credit Cooperative (SACCO)	267 (88.1)	36 (11.9)
With your current parent(s)/caregiver(s)	173 (57.1)	130 (42.9)
Any other place	155 (51.2)	148 (48.8)
If you have ever deposited money in a bank, how did you get the money to save?		
My parent/guardian gave me the money to put into the bank account	5 (45.5)	6 (54.5)
I saved it from my work.	7 (63.6)	4 (36.4)
I saved is from my allowance.	7 (63.6)	4 (36.4)
Other	9 (81.8)	2 (18.2)

For respondents who reported saving in the bank (n=11), they were asked to report the source(s) of their money. About 54.5% (n=6) reported that their parents/guardians gave them money, 36.4% (n=4) saved money from their own work, 36.4% (n=4) saved money from their own allowance, and 18.2% (n=2) saved money from other resources, such as from selling personal property, or from a community development project.

In addition to personal savings, 43.7% (n=551) of respondents reported that their caregivers were saving money for them, and 40.7% (n=513) reported that their caregivers had an account in a formal financial institution (Bank or SACCO). When given a hypothetical scenario, "If you had 10,000 Uganda shillings what would you do?" Over half of respondents 52.4% (n=660) reported that they would purchase some kind of revenue generating asset, such as livestock, and 32.3% (n=407) reported that they would spend half and save half. Table 12.2 below presents participants' spending preferences.

Table 12.2 Spending Preferences (N=1260)

If you had Uganda shilling 10,000, would you?	Frequency *n (%)*
Spend it all	60 (4.8)
Spend most of it	25 (1.9)
Spend half, save half	407 (32.3)
Save most of it	55 (4.4)
Save all of it	53 (4.2)
Buy chicken, rabbit or other animals that would eventually bring in money	660 (52.4)

Importance of Saving Toward a Specific Goal

Respondents were asked to rate the importance of saving money toward a specific goal (e.g., education, a family business) on a Likert scale with responses: 1=*not important at all*, 2=*not very important*, 3=*somewhat important*, 4=*very important* and 5=*extremely important*. Table 12.3 presents the mean scores and standard deviations for each item and the overall summated mean score. Overall, respondents placed significant importance on saving (mean = 21.41, SD = 2.6). High mean scores were reported on items related to saving for a family business (mean=4.53, SD= 0.6) and education (mean= 4.46, SD= 0.6). Individual responses are presented in the Table A.10 of the Appendix.

Table 12.3 Importance of Saving for a Specific Goal (N=1260)

Variable	Mean (SD)
Saving money for a family business	4.53 (0.7)
Saving money for one's personal educational	4.46 (0.6)
Saving money for family use	4.23 (0.9)
Saving money to buy an animal	4.34 (0.8)
Saving money to move into one's own home	3.83 (1.2)
Total Mean Score	**21.41 (2.7)**
Range	**9-25**

Level of Confidence to Save for a Specific Goal

In addition, respondents were asked to rate their level of confidence to save toward a specific goal. Responses were rated on a 5-point Likert scale, with 1=*not confident at all*, 2=*not very confident*, 3=*somewhat confident*, 4=*very confident* and 5=*extremely confident*. Table 12.4 presents the mean scores and standard deviations for each item and the overall mean score. Similar to importance of savings above, respondents highly rated their confidence in ability to save (mean = 19.9, SD = 3.9). Although respondents placed higher importance on saving for a family business and educational opportunities, they felt more confident in their abilities to save for educational opportunities (mean =4.2, SD= 1.01), and buying some kind of revenue generating asset, such as livestock (mean =4.2, SD= 1.01). Respondents felt least confident about saving toward their own home (mean =3.99, SD=1.2) which may be because home ownership is too distant in the future to be considered tangible at this stage. Individual responses are presented in the Table A.11 of the Appendix.

Table 12.4 Confidence in Ability to Save (N=1260)

Variable	Mean (SD)
Save money for a family business	3.99 (1.2)
Save money for personal educational opportunities, including formal schooling or vocational, technical, or job training	4.2 (1.0)
Save money for family use	3.9 (1.2)
Save money to buy an animal such as a goat, pig, or cow	4.2 (1.0)
Save money to move into one's own home	3.5 (1.4)
Total Mean Score	**19.9 (3.9)**
Range	**5-25**

13. PERSONAL HEALTH

Questions in this section were tested in our previous Bridges and Suubi studies. Respondents were asked several questions regarding their personal health including overall life and physical health satisfaction, energy level, medication intake, and STD history. Participants' reports are presented in Table 13.1 below.

Respondents were generally satisfied with their life. About 65.7% (n=828) were "extremely satisfied" with their life. Over half of respondents (52.5%, n= 662) rated their physical health as "excellent" and 46.5% (n=586) reported that they "sometimes" experienced low energy. In terms of medication intake, 7.6% (n=96) reported than they were taking some form of medication. The most common reasons for taking medicine was pain relief for headaches and menstrual cramps, treatment of typhoid, malaria/fever, and HIV. At baseline, 10 respondents had been diagnosed with an STD, including one case of Syphilis, six cases of candidiasis, and one case of a non-specific disease. Respondents also reported experiencing one or a combination of symptoms, such as itching, pain, rash, and discharge among others.

Table 13.1 Personal Health (N=1260)

Variable	Frequency *n (%)*
How satisfied are you with your life overall?	
Extremely satisfied	828 (65.7)
Very satisfied	263 (20.9)
Somewhat satisfied	138 (10.9)
Not very satisfied	15 (1.2)
Not satisfied at all	16 (1.3)
At present time would you say your physical health is:	
Excellent	662 (52.5)

Good	387 (30.7)
Fair	196 (15.6)
Poor	6 (0.5)
Very poor	9 (0.7)
I have low energy:	
Almost always	53 (4.2)
Often	187 (14.9)
Sometimes	586 (46.5)
Almost never	226 (17.9)
Never	208 (16.5)
Do you take any medications?	
Yes	96 (7.6)
No	1164 (92.4)
Have you ever been diagnosed with any Sexually Transmitted Disease (STDs)?	
Yes	10(0.8)
No	1250(99.2)
Have you ever experienced any or a combination of these symptoms?	
Bleeding	16 (1.2)
Pain	45 (3.8)
Rash	85 (6.8)
Discharge	38 (3.0)
Sores/Blisters	15 (1.2)
Warts	9 (0.7)
Itch	137 (10.9)
Problem with urination	29 (2.3)
Others	0.00

Biomarker Data

In addition to self-reports, all respondents in the study were asked to provide blood, urine specimens, and vaginal swab specimens for testing common bacterial and viral STDs, HIV, and pregnancy. Testing in a study-certified local laboratory was performed to assess trichomonas, chlamydia, gonorrhea and HIV. About 5.16 % (n=65) of respondents tested positive for trichomonas, 0.56% (n=7) tested positive for chlamydia, and 0.63% (n=8) tested HIV positive. About 1.11 % (n=14) of respondents received a positive pregnancy test result.

Body Mass Index (BMI)

Participants were asked whether they knew their body weight and height. About 53.02% (n=668) and 5.79% (n=73) of respondents knew their weight and height respectively. Actual height and weight measurements were collected by the research team using a Seca Mechanical Floor Scale - Model 762 and Oxford 67mm height rod. Weight was recorded to the nearest tenth of a kilogram, and height was measured to the nearest tenth of a centimeter. Height and weight

measurements were used to determine BMI. The World Health Organization's BMI-for-age percentile growth chart[1] for girls between 5 to 19 years, was used to determine respondents' BMI and corresponding percentiles. In our sample, 2.22 % (n=28) of respondents were underweight (BMI <5th percentile), 86.27% (n=1087) were normal weight (BMI 5th to <85th percentile), 9.29% (n=117) were overweight (BMI 85th to <95th percentile), and 2.22% (n=28) were obese (BMI ≥95th percentile).

14. MENSTRUATION PRACTICES

Questions in this section were adapted from the Questionnaire Assessing Girls' Menstrual Hygiene Practices in East Africa.[60] Respondents were asked several questions related to their current menstruation management practices, their menstruation experiences, choice of protection and disposal methods, as well as the effect of menstruation experience on their school participation. At baseline, 89.1% (n=1123) of respondents had started their menstruation cycle, and 10.9% (n=137) had not. All respondents were asked about the different types of absorbents used during menstruation (Table 14.1). The majority of participants 96.1% (n=1211) had purchased sanitary pads, 84.8% (1069) had heard about reusable pads that can be washed and used again, and 80.2% (n=1010) had heard about a menstruation cloth/towel. Other materials included banana fibers, bark cloth, pieces of paper, and plastic bags.

Table 14.1 Menstrual Hygiene and Management I (N=1260)

Variable	Yes *n (%)*	No *n (%)*
Which of the following products have you heard of?		
Cloth/Towel	1010 (80.2)	250 (19.8)
Tampon	53 (4.2)	1207 (95.8)
Purchased sanitary pad	1211 (96.1)	49 (3.9)
Menstrual Cup	85 (6.8)	1175 (93.3)
Toilet paper	448 (35.6)	812 (64.4)
Reusable pads that you can wash and use again	1069 (84.8)	191 (5.2)
Cotton	379 (30.1)	881 (69.9)
Mattress	166 (13.2)	1094 (86.8)
Natural materials (mud, cow dung or leaves)	67 (5.3)	1193 (94.7)
Other	26 (2.1)	1234 (97.9)

[1] According to the World Health Organization, underweight is defined as BMI below the 5th percentile. Overweight is defined as a BMI at or above the 85th percentile and below the 95th percentile. Obesity is defined as a BMI at or above the 95th percentile. Available at: https://www.who.int/growthref/bmifa_girls_5_19years_per.pdf?ua=1

It should be noted that the choice of sanitary protection is influenced by the girl's environment, cultural acceptability, water supply and affordability.[61] Participants (who had started their cycle) were asked about what forms of protection they normally use during their cycle and their ability to purchase disposable sanitary pads. Results are presented in Table 14.2.

The majority of participants 75.2% (n=947) reported using sanitary pads, 27.3% (n=344) reported using a cloth or towel, and 21.3% (n=268) reported using reusable pads. In addition, respondents were assessed on their ability to purchase disposable sanitary pads. About 63.9% (n=806) reported buying disposable pads in the last six months, while 15.2 % (n=191) reported that there were no disposable sanitary pads in the shops. More than half of respondents (56.5%, n=712) reported that they were unable to buy disposable sanitary pads from a shop, and 56% (n=706) reported that they do not have enough money to purchase disposable sanitary pads form a shop. This is not surprising given that respondents in our sample come from low-income families and may not afford to buy commercially produced disposable sanitary pads.

Table 14.2 Menstrual Hygiene and Management II (N=1123)

Variable	Yes *n (%)*	No *n (%)*
What do you normally use during your menstruation period?		
Cloth/Towel	344 (27.3)	779 (61.8)
Tampon	10 (0.79)	1113 (88.3)
Purchased sanitary pad	947 (75.2)	176 (13.9)
Menstrual Cup	4 (0.32)	1,119 (88.8)
Toilet paper	39 (3.10)	1,084 (86.0)
Reusable pads that you can wash and use again	268 (21.3)	855 (67.9)
Cotton	24 (1.90)	1099 (87.2)
Mattress	6 (0.48)	1117 (88.7)
Natural materials (mud, cow dung or leaves)	12 (0.95)	1111 (88.2)
Other	4 (0.32)	1119 (88.8)
Disposable sanitary towels		
Have you bought disposable sanitary pads from a shop in the last six months?	806 (63.9)	317 (25.2)
Have you ever wanted to buy disposable sanitary pads form a shop but been unable to?	712 (56.5)	411 (32.6)
I do not have enough money to buy disposable sanitary pads from a shop.	706 (56.0)	417 (33.1)
There are no disposable sanitary pads in the shops.	932 (83.0)	191 (17.0)

Lack of menstrual health hygiene knowledge and practices, and poor access to sanitary products impose barriers for engagement in school and other social activities.[62] Respondents were asked how often their menstruation cycle interfered with their school attendance. Specifically, respondents were asked how often they missed school during their period (Table14.3). About

1.6% (n= 18) reported missing school always, 3.6% (n=40) missed school many times, 6.9% (n=78) several times, 17.1% (n=192) once or twice, and 70.8% (n=795) had never missed school.

Respondents who reported ever missing school during their cycle (n= 1123) were then asked the reasons why they couldn't make it to school. About 29.2% (n=328) reported fear of staining their uniforms, 22.6 % (n=254) feared being made fun of, 33% (n=371) did not have sanitary pads, 33.7% (n=378) reported pain, and 32.8% (n=368) reported feeling uncomfortable or tired during their cycle. Moreover, a non-facilitating school environment can make it difficult for girls to attend school during their cycle. In our sample, 32% (n=359) of respondents reported missing school due to lack of space to wash and change, and 20.6% (n=231) reported lack of place to dispose of sanitary products.

Table 14.3 School Attendance During Menstruation (N=1123)

Variable	Frequency n (%)
How often does your menstruation period make you miss school?	
Never	795 (70.8)
Once or twice	192 (17.1)
Several times	78 (6.9)
Many times	40 (3.6)
Always	18 (1.6)
Reasons for missing school during menstruation	
I am afraid of staining my clothes	328 (29.2)
I am afraid of others making fun of me.	254 (22.6)
Menstruation periods can cause pain.	378 (33.7)
Menstruation periods can make me feel uncomfortable or tired.	368 (32.8)
There isn’t anywhere for girls to wash and change at school.	359 (32.0)
There is nowhere to dispose of sanitary products.	231 (20.6)
I do not have sanitary pads.	371 (33.0)
Because of cultural or religious reasons	201 (17.9)
Other	4 (0.4)

In addition to school attendance, respondents were asked whether their menstruation cycle interfered with their engagement in household activities. The results are presented in table 14.4. Almost one third of respondents 30.6% (n=386) reported inability to do sports during their cycle, 15.2% (n=192) reported inability to walk far, and about 14.5% (n= 183) reported inability to go to a place of worship. Other constraints were reported around doing housework and household chores.

Table 14.4 Physical Activity During Menstruation (N=1123)

Statement	Yes *n (%)*	No *n (%)*	Not Applicable *n (%)*
Does the menstruation period make you miss paid work?	69 (5.5)	1054 (83.7)	137 (10.87)
Does your menstruation period make you miss housework?	113 (8.9)	1010 (80.2)	137 (10.87)
Does your menstruation period make you stay at home?	117 (9.3)	1006 (79.8)	137 (10.87)
Does your menstruation period make you unable to walk far?	192 (15.2)	931(73.9)	137 (10.87)
Does your menstruation period make you unable to carry our daily activities like cooking or fetching water?	105(8.3)	1018 (80.8)	137 (10.87)
Does your menstruation period make you unable to go to church/Mosque/place of worship?	183 (14.5)	940 (74.6)	137 (10.87)
Does your menstruation period make you unable to do sport?	386 (30.6)	737 (58.5)	137 (10.87)

Pain during Menstruation

About 30% (n=378) of respondents in our sample reported missing school due to pain during their menstruation cycle. Respondents were asked to rate the average level of pain they experience during their cycle on a scale of 0 (pain free) to 10 (worst pain I've ever experienced). Results are presented in Table 14.5 below. Overall, about 15% (n=171) of our respondents reported experiencing extreme pain, while 26.9% (n=303) reported experiencing no pain at all.

Table 14.5 Level of Pain during Menstruation (N=1123)

On a scale of 0 to 10, indicate the average level of pain you experience during menstruation.	Frequency *n (%)*
0 (Pain free)	303 (26.9)
1	108 (9.6)
2	94 (8.4)
3	99 (8.8)
4	57 (5.1)
5	130 (11.6)
6	61 (5.4)
7	37 (3.3)
8	40 (3.6)
9	23 (2.1)
10 (Worst pain I have ever had)	171 (15.2)

Participants' Feelings during Menstruation

Anecdotal evidence links the menstrual cycle and comorbid psychiatric symptoms such as depression and anxiety among adolescent girls.[63] Respondents were asked to indicate whether a particular statement related to their feelings was true for them during their period. More than half of the participants 63.8% (n=717) reported not feeling good, 45.2 (n= 508) wished they could be happier, and 54.3% (n=610) reported feeling less confident during their cycle. However, 42.4% (n=476) of the respondents reported feeling happy with themselves and 44.5% (n=500) felt as good as other people. Individual response data are presented in Table 14.6 below.

Table 14.6 Mental Status and Level of Confidence during the Menstruation (N=1123)

Variable	No n (%)	Yes n (%)
During my menstruation period I am happy with myself	647 (57.6)	476 (42.4)
During my menstruation period I feel I am no good	406 (36.2)	717 (63.8)
During my menstruation period I feel as good as other people	623 (55.5)	500 (44.5)
During my menstruation period I wish I could be happier	615 (54.8)	508 (45.2)
During my menstruation period I feel that I am a failure	751 (66.9)	372 (33.1)
During my menstruation period I feel less confident than when I am not on my menstruation period.	513 (45.7)	610 (54.3)

Menstruation -Related Beliefs

In addition to feelings during menstruation period, respondents' beliefs about menstruation were assessed. Specifically, all respondents were asked to indicate whether specific statements about menstruation were true (coded as 1) or false (coded as 0). More than half of the respondents 50.6% (n= 637) believed that women stop menstruating as they grow old, and 55.2% (n=696) believed that menstrual blood comes from the womb. Participants also reported false beliefs about menstruation i.e. menstruation means that someone is sick (32.9, n=414), menstrual blood contains dangerous substances (37.6 %, n=474), it is harmful to a woman's body if she runs or dances during her menstruation period (45%, n=414), and girls should not leave home during their period (30.2%, n=381). Responses are provided in Table 14.7 below.

Table 14.7 Knowledge and Belief about Menstruation (N=1260)

Statement	True *n (%)*	False *n (%)*	Don't know *n (%)*
Women stop menstruating as they grow old	637 (50.6)	387 (30.7)	236 (18.7)
Menstruation is a disease	171 (13.6)	1007 (79.9)	82 (6.51)
Pregnant women menstruate	161 (12.8)	939 (74.5)	160 (12.7)
Menstrual blood comes from the stomach where the food is	184 (14.6)	763 (60.6)	313 (24.8)
Menstrual blood comes from the womb	696 (55.2)	286 (22.7)	278 (22.1)
Menstrual blood contains dangerous substances	474 (37.6)	533 (42.3)	253 (20.1)
Pain during menstruation period means that	414 (32.9)	669 (53.1)	177 (14.1)

someone is sick			
It is harmful to a woman's body if she runs or dances during her menstruation period.	567 (45.0)	544 (43.2)	149 (11.8)
During menarche, girls should not leave home	381 (30.2)	784 (62.2)	95 (7.5)

15. MENTAL HEALTH

Child Self-Concept

Self-concept was measured using the Tennessee Self-Concept Scale (TSCS).[64] The 20-item scale measures children's perception of identity and self-satisfaction. Each of the 20 items was rated on a 5-point scale: 1= *always false*, 2=*usually false*, 3=*sometimes true/sometimes false*, 4=*usually true* and 5= *always true.* Ten (10) items in the opposite direction were reverse-coded to create summated scores. The theoretical range for the Tennessee Self-Concept Scale is 20-100. Higher scores indicate higher levels of child self-concept. The overall mean score was 80.8 (SD =11.9, range = 44-100), representing high levels of self- concept. A high internal consistency (Cronbach alpha =0.83) was reported for this scale. Individual response data are presented in the Table A.12 of the Appendix.

Sense of Hopelessness

Respondents' sense of hopelessness was measured using the Beck Hopelessness Scale (BHS).[65] The 20-item scale measures children's hopelessness and pessimistic attitudes toward the future. Items have a "*true*" or "*false*" response rating, coded as "1" or "0" respectively. Nine (9) items in the opposite direction were reverse-coded to create a summated score. The theoretical range for the BHS is 0-20, with higher scores indicating a high level of hopelessness and pessimistic attitudes. The overall mean score was 4.6 (SD = 3.01; range = 0-17), indicating lower levels of hopelessness and pessimistic attitudes. The scale demonstrated a moderate internal consistency (Cronbach's alpha =0.71). Individual response data are presented in Table A.13 of the Appendix.

Self-Esteem

Respondents' self-esteem was measured using the Rosenberg Self-Esteem Scale (RSES).[66] The 10-item scale measures individual self-esteem on a 4-point Likert- scale, with 4=*strongly agree*, 3=*agree*, 2=*disagree*, 1=*strongly disagree*. The theoretical range for the RSES is 10-40, with high scores indicating high self-esteem. The overall mean score was 34 (SD = 4.6; range 16-40) indicating a high level of self-reported self-esteem among respondents at baseline. The scale demonstrated a moderate internal consistency (Cronbach's alpha 0.66). Individual response data are presented in Table A.14 of the Appendix.

Depressive Symptoms

Participants' depressive symptoms were measured using the Beck's Depression Inventory (BDI).[67-69] The scale measures characteristic attitudes and symptoms of depression including mood, pessimism, and sense of failure, self-dissatisfaction, guilt, punishment, self-dislike, self-accusation, suicidal ideas, crying, irritability, social withdrawal, indecisiveness, body image change, work difficulty, insomnia, fatigability, loss of appetite, weight loss, somatic preoccupation, and loss of libido. The scale consists of 21 sets of statements; each set is ranked regarding severity on a 4-point continuum (0=least, 3=most). The theoretical range for the BDI is 0-63, with higher scores indicating higher levels of depressive symptoms. The overall mean score was 18.47 (SD=10.2; range 0-58). The scale demonstrated a high internal consistency (Cronbach's alpha =0.83). Individual response data are presented in Table A.15 of the Appendix.

16. HIV/AIDS

Study respondents live in AIDS-impacted communities, and many have had intimate experiences with the epidemic. In this section, respondents were asked several questions about their HIV knowledge, HIV prevention attitudes, and adherence to HIV medication. All questions in this section were assessed in our previous Bridges and Suubi studies.

To assess HIV/AIDS prevention attitudes, respondents were asked to rate 5-items related to HIV/AIDS prevention on a 5-point Likert scale, with 1=*not at all agree*, 2=*agree a little*, 3=*moderately agree*, 4=*agree a lot*, and 5=*agree a great deal*. The theoretical range for this scale is 5-25, with higher scores indicating higher levels HIV/AIDS prevention attitudes. The scale demonstrated a moderate reliability coefficient (Cronbach's alpha =0.70). Table 16.1 presents the mean scores and standard deviations for each item. The overall mean score was 19.5 (SD= 5.3; range= 5-25). High ratings were reported on knowing that HIV is a threat to the participants' health (mean = 4.40, SD=1.3), and abstinence as the best way to void getting HIV (mean =4.3, SD=1.3). Individual responses are presented in the Table A.16 of the Appendix.

Table 16.1 HIV/AIDS Prevention Attitudes (N=1260)

Statement	Mean (SD)
As a teenager, I think AIDS is a threat to my health	4.4 (1.3)
I think all people my age who have sex should use condoms	3.4 (1.8)
I think the best way to avoid getting AIDS is not to have sex	4.3 (1.3)
Even if you know your partner very well, you should use condoms	3.7 (1.7)
I think it is very imported to use condoms every time one has sex	3.7 (1.7)
Total Mean Score	**19.5 (5.3)**
Range	**5-25**

HIV/AIDS Prevention Knowledge

Knowledge of HIV/AIDS transmission was assessed by asking respondents if five different behaviors were safe to engage in with an HIV positive person. Response options included: 1=*not sure*, 2=*unsafe*, and 3=*safe*. Results are presented in Table 16.2 below. Respondents demonstrated knowledge of the most unsafe and high-risk behaviors, i.e. having unprotected sex (93.9%, n=1183), and sharing a needle (93.7%, n=1181) with an HIV positive person. However, participants also rated some behaviors which are considered safe, as unsafe. For example, 58.8% (n=741) of participants reported that kissing an HIV positive person is risky, and about 42% (n=530) reported that touching a toilet seat that an HIV positive person has touched is unsafe. The inconsistent grasp of HIV/AIDS information may be related to the quality/type of curriculum in schools and HIV/AIDS-related stigma.

Table 16.2 HIV/AIDS Transmission Knowledge (N=1260)

Statement	Safe *n (%)*	Unsafe *n (%)*	Not Sure *n (%)*
Sharing needles or syringes (empiso) with an HIV/AIDS infected person.	28 (2.2)	1181 (93.7)	51 (4.1)
Having unprotected sex with an HIV/AIDS infected person	38 (3.1)	1183 (93.9)	39 (3.1)
Holding hands with an HIV/AIDS infected person	826 (65.6)	322 (25.6)	112 (8.9)
Touching toilet seats, spoons, cups or other objects after a person infected with HIV/AIDS	577 (45.8)	530 (42.1)	153 (12.1)
Kissing a person who is infected with HIV/AIDS	354 (28.1)	741 (58.8)	165 (13.1)

General knowledge of HIV/AIDS was also assessed by asking respondents to indicate which of the 8 statements were correct about HIV/AIDS. Response options were: 1 =*not sure*, 2=*false* and 3 =*true*. Participants' responses are illustrated in Table 16.3.

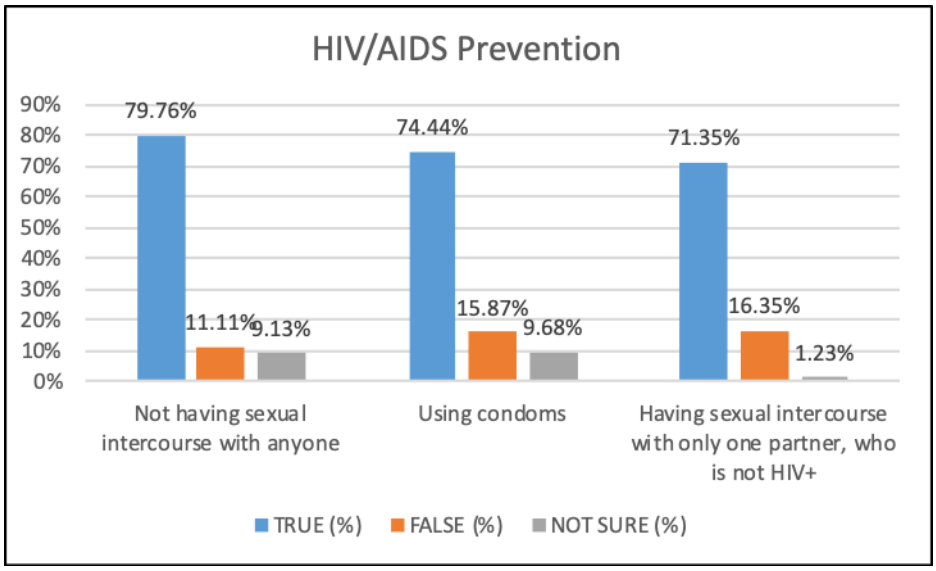
Similar to HIV transmission knowledge, there was some variability in respondents' HIV general knowledge. Majority of respondents were able to accurately answer items such as, "Anyone can become infected with HIV/AIDS" (85%, n=1071), "A pregnant woman who has HIV/AIDS can give it to her unborn" (78.8%, n=993), and "There is test to determine if a person is HIV positive" (92%, n=1161). However, for other questions like, "If a woman is using birth control pills she is protected from HIV" and "You can look at a person and tell if they have HIV," a greater number of participants answered "*true*" or "*unsure,*" pointing to the need for correct HIV-related information among participants.

Table 16.3 HIV/AIDS General Knowledge (N=1260)

Statement	True *n (%)*	False *n (%)*	Not Sure *n (%)*
You can look at a person and tell if they are infected with HIV/AIDS.	295 (23.4)	673 (53.4)	292 (23.2)
A pregnant woman who has HIV/AIDS and is not on treatment can transmit the virus to her unborn baby.	993 (78.8)	142 (11.3)	125 (9.92)
There is a cure for HIV/AIDS.	378 (30.0)	724 (57.5)	158 (12.5)
If a woman is using birth control pills, she is protected from HIV/AIDS infection.	320 (25.4)	623 (49.4)	317 (25.2)
You can get HIV/AIDS from a mosquito bite.	215 (17.1)	898 (71.3)	147 (11.7)
You can get HIV/AIDS from using the same washing basin with an HIV/AIDS infected person.	265 (21.0)	843 (66.9)	152 (12.1)
There is a test to determine if a person has HIV/AIDS.	1161 (92.1)	75 (5.9)	24 (1.9)
Anyone can become infected with HIV/AIDS.	1071 (85.0)	142 (11.3)	47 (3.7)

Finally, respondents were asked how people can reduce their chances of becoming infected with HIV/AIDS, based on the behavioral change model of ABC (**A**bstinence, **B**e faithful and Use of **C**ondoms). Respondents were asked to rate each of the three items as: 1=*not sure*, 2=*false* or 3=*not sure.* Individual response data for these items are presented in Figure 16.1 below.

Figure 16.1 HIV/AIDS Prevention (N=1260)



The majority of respondents knew that all three prevention methods could lower their risk of becoming infected with HIV/AIDS. The ABC model has been implemented widely in school curriculum throughout Uganda. However, while every child in school should have access to this curriculum, religious institutions tend to emphasize the A (abstinence) and B (be faithful) components of the curriculum as opposed to C (condom use).[70] Nonetheless, about 74% (n=938) of all respondents reported condom use as equally effective in reducing the risk of HIV. Individual response data for these items are presented in Table A.17 of the Appendix.

Anti-Retroviral Treatment (ART)

Respondents were asked questions related to HIV testing, HIV status and adherence to medication–for those who were living with HIV. Item assessing medication adherence were adapted from the validation of a new-item self-report measure for medication adherence.[71] About 74.7% (n=941) of respondents had been tested for HIV/AIDS compared to 25.3% (n=319) who had not. Respondents reported many barriers to testing, including lack of perceived risk of HIV, fear of being HIV-positive, fear of blood draw using needles, the cost of the test, testing sites and time not being convenient, perception that more immediate problems take priority, difficulty accessing services, and poor quality of interactions with health care providers.

Of those who had been tested prior to the baseline (n=941), 93% (n=875) had been tested within the last four years (2015-2018). Six (6) participants had received a positive HIV diagnosis, and 5 had been prescribed antiretroviral therapy (ART) treatment medication, taking their medication twice daily. Among respondents who initiated ART, 4 out 5 reported complete adherence(i.e.. no missed doses) and 1 respondent reported missing one dose of her HIV medicine in the last 30 days. Responses are presented in Table 16.4 below.

Table 16.4 Adherence to Anti-Retroviral Treatment (N=5)

Variable	Frequency n (%)
In the last 30 days, on how many days did you miss at least one dose of any of your HIV medicines?	
0	4 (0.3)
3	1 (0.1)
Not applicable	1255 (99.6)
On the days missed, how many doses did you miss?	
0	4 (0.3)
1	1 (0.1)
Not applicable	1255 (99.6)
In the last 30 days, how good a job did you do at taking your HIV medicine the way you were supposed	
Fair	1 (0.1)
Very Good	2 (0.2)
Excellent	2 (0.2)
Not applicable	1255 (99.6)

In the last 30 days, how often did you take your HIV medicines in the way you were supposed to?	
Almost Always	1 (0.1)
Always	4 (0.3)
Not applicable	1255 (99.6)

17. GENDER ROLES/NORMS

In Uganda, as in other sub-Saharan Africa countries, cultural practices that perpetuate inequality between boys and girls still exist.[72] Girls are socialized to become home makers, prepared for future marriage and becoming mothers. Meanwhile, boys are socialized to become the primary financial providers and heads of the household, and do not share in responsibility in the house.[72,73]

In our sample, gender norms were measured using items adapted from the Attitudes Towards Women Scale for Adolescents[74] and were tested in our previous Bridges and Suubi studies.[33-34, 44-47,51,52] The 10-item scale measures gender attitudes among adolescents. Respondents were asked to indicate whether they agreed with each statement related to how men and women act. Items had a *"Yes"* or *"No"* response coded as "1" or "0" respectively. Respondents exhibited both positive and negative gender norms. Specifically, respondents agreed with items related to gender inequality, such as, "In general, the father should have greater authority than the mother in making family decisions" (87.6 %, n=1103), "Girls should be more concerned with becoming good wives and mothers than desiring a professional or business career" (70.4%, n=887), and "More encouragement in a family should be given to sons than daughters to go to college" (50%, n=630). However, respondents also rated highly on positive items such as, "On average, girls are as smart as boys" (863.6%, n=801) and "Girls should have the same freedoms as boys" (72.6%, n=915). Responses are presented in the Table 17.1 below.

Table 17.1 Gender Roles/Norms (N=1260)

Statement	Yes *n (%)*	No *n (%)*	Don't Know *n (%)*
Swearing is worse for a girl than for a boy.	552 (43.8)	537 (42.6)	171 (13.6)
On average, girls are as smart as boys.	801 (63.6)	381 (30.2)	78 (6.2)
More encouragement in a family should be given to sons than daughters to go to college.	630 (50.0)	568 (45.1)	62 (4.9)
In general, the father should have greater authority than the mother in making family decisions.	1103 (87.5)	140 (11.1)	17 (1.4)
It is more important for boys than girls to do well in school.	466 (36.9)	754 (59.8)	40 (3.2)
Boys are better in school than girls.	511 (40.6)	711 (56.4)	38 (3.1)
It is all right for a girl to propose to a boy.	209 (16.6)	951 (75.5)	100 (7.9)

Girls should be more concerned with becoming good wives and mothers, than desiring a professional or business career.	887 (70.4)	335 (26.6)	38 (3.1)
Girls should have the same freedoms as boys.	915 (72.6)	329 (26.1)	16 (1.3)
It's alright for girls to carry condoms.	329 (26.1)	838 (66.5)	93 (7.4)

Gender Relations

In addition to gender norms, gender relations were assessed via the Gender Relations Scale.[75] The 5-item scale measures attitudes toward gender roles and expectations, decision-making around sex and reproduction, household decision-making, and violence. The two response options were "*Agree"* and "*Disagree,"* coded as "1" or "2" respectively. Similar to gender norms, respondents exhibited items related to negative gender relations, such as "It is a female's responsibility to avoid getting pregnant (63.9%, n=805), "A male should have the final word about decisions in his home" (70.4%, n=887). However, the majority of respondents agreed that "males and females should share household chores (76.3%, n=961), and 86% (n=1084) disagreed at gendered violence, i.e. "It is OK for a male to hit his wife is she will not have sex with him." Individual responses are presented in Table 17.2 below.

Table 17.2 Gender Relation Scale (N=1260)

Statement	Agree *n (%)*	Disagree *n (%)*
It is a female's responsibility to avoid getting pregnant.	805 (63.9)	455 (36.1)
A male should have the final word about decisions in his home.	887 (70.4)	373 (29.6)
A female should tolerate violence to keep the family together.	584 (46.4)	676 (53.7)
It is OK for a male to hit his wife if she will not have sex with him.	176 (13.9)	1084 (86.0)
Males and females should share household chores.	961(76.3)	299 (23.7)

18. ELECTRONIC VICTIMIZATION

Items in this section were adapted from the Youth Internet Survey.[76,77] Participants were asked 3 items related to electronic victimization (Table 18.1). About 3.8% (n=48) reported experiencing cyberbullying via the internet i.e. that someone used the internet to bother, harass, or spread mean words or pictures about them, about the same number of respondents 3.7% (n=3.7) reported experiencing bullying via cellphone and text messaging, and 4.3% (n=54) reported experiencing online sexual harassment.

Table 18.1 Electronic Victimization (N=1260)

Variable	Yes *n (%)*	No *n (%)*
Has anyone ever used the Internet to bother or harass you or to spread mean words or pictures about you?	48 (3.8)	1212 (96.2)
Has anyone ever used a cell phone or texting to bother or harass you or to spread mean words or pictures about you?	47 (3.7)	1213 (96.3)
Did anyone on the Internet ever ask you sexual questions about yourself or try to get you to talk online about sex when you did not want to talk about those things?	54 (4.3)	1206 (95.7)

19. YOUTH RISK BEHAVIOR SURVEY

Cigarette Smoking

Questions in this section were adapted from the Youth Risk Behavior Survey[78] and were tested in our Bridges and Suubi studies.[33-34, 44-47,51,52] Respondents were asked about their cigarette, alcohol, marijuana use, as well as rates of peer pressure surrounding these behaviors.

Self-reported tobacco, marijuana, alcohol and drug use were minimal at baseline. Responses related to cigarette smoking are presented in table 19.1. Of the total 1260 respondents, 1.2% (n=15) reported that they had tried smoking, 5 of these respondents confirmed smoking in the past 30 days, and 5 respondents had smoked one cigarette per day during the past 30 days. Respondents reported purchasing these cigarettes, or someone else giving it to them. In addition, the majority of respondents (94.1%, n=1185) reported no pressure on people their age to smoke, and 94.9% (n=1196) did not feel peer pressure to smoke themselves. Moreover, 96.1% (n=1220) of respondents reported that none of their closest friends smoked a cigarette.

Table 19.1 Cigarette Smoking History (N=1260)

Variable	Frequency *n (%)*
Ever tried Cigarette smoking	
Yes	15 (1.2)
No	1245 (98.8)
Age at fist smoke or puff	
8 years old or younger	4 (0.3)
11 or 12 years old	3 (0.2)
13 or 14 years old	4 (0.3)
15 or 16 years old	1 (0.1)
17 years old or older	3 (0.2)
Not applicable	1245 (98.8)
Number of days smoked in the past 30 days	
0 days	10 (0.8)
1 or 2 days	4 (0.3)

6 to 9 days	1 (0.1)
All 30 days	0 (0.0)
Not applicable	1245 (98.8)
Number of cigarettes smoked in the past 30 days	
1 cigarette per day	5 (0.4)
Not applicable	1255 (99.6)

Variable	Frequency *n (%)*
Source of cigarettes	
I bought it myself	1 (0.1)
I got it at a public event such as a concert, sporting event or wedding	1 (0.1)
My friend gave it to me	2 (0.2)
Someone gave it to me	1 (0.1)
Not applicable	1255 (99.6)
How much peer pressure is there on people your age to smoke cigarettes?	
None	1185 (94.1)
A little	46 (3.7)
A moderate amount	10 (0.8)
A lot	11 (0.9)
A great deal	8 (0.6)
How often do you feel peer pressure to smoke cigarettes?	
Never	1196 (94.9)
Sometimes	42 (3.3)
About half the time	7 (0.6)
Most of the time	8 (0.6)
Always	7 (0.6)
Of your closest friends, how many smoke cigarettes?	
None	1210 (96.1)
Less than half	30 (2.4)
About half	7 (0.6)
More than half	10 (0.8)
All	3 (0.2)

Smoking Marijuana

Respondents were asked about their marijuana use in the past 30 days. Of the total 1260 respondents, 3 reported that they had ever tried marijuana. One respondent confirmed smoking less than one stick of marijuana that she got from a family member in the past 30 days. Similar to cigarette smoking, 97.6% (n=1230) of respondents reported no pressure from people their age to smoke marijuana, 96.8% (n=1220) did not feel peer pressure to smoke, and 96.9% (n=1222) reported that none of their closest friends smoked marijuana. Individual responses are presented in Table 19.2 below.

Table 19.2 Marijuana Smoking History (N=1260)

Variable	Frequency *n (%)*
Tried marijuana smoking	
Yes	3 (0.2)
No	1257 (99.76)
Age at first tried marijuana	
8 years old or younger	2 (0.2)
15 or 16 years old	1 (0.1)
Not applicable	1257 (99.8)
Number of days smoked marijuana in the past 30 days	
0 days	2 (0.2)
20 to 29 days	1 (0.1)
Not applicable	1257 (99.8)
Amount of marijuana smoked in the past 30 days	
Less than 1 stick per day	1 (0.1)
Not applicable	1259 (99.9)
Sources of Marijuana	
I took it from a family member	1 (0.1)
Not applicable	1259 (99.9)
How much peer pressure is there on people your age to smoke marijuana?	
None	1230 (97.6)
A little	19 (1.5)
A moderate amount	3 (0.2)
A lot	4 (0.3)
A great deal	1 (0.1)
How often do you feel peer pressure to smoke marijuana?	
Never	1220 (96.8)
Sometimes	31 (2.5)
About half the time	6 (0.5)
Most of the time	2 (0.2)
Always	1 (0.1)
Of your closest friends, how many smoke marijuana?	
None	1222 (96.9)
Less than half	23 (1.8)
About half	7 (0.6)
More than half	6 (0.5)
All	2 (0.2)

Alcohol Use

Respondents' history of alcohol use was assessed. Drinking alcohol included beer, wine, and liquor such as whiskey, local brew, including Uganda Waragi, Mwenge bigere, or Tonto. Drinking a few sips of wine for religious purposes was excluded. Responses are presented in Table 19.3 below. Of the total 1260 respondents, 5.9% (n=74) reported ever drinking alcohol,

other than a few sips; and 5.2 % (n=65) reported drinking on 1 or 2 days during their entire life. About 1.3% (n=15) of respondents reported having alcohol, other than a few sips within the past 30 days; 4.7% (n=59) reported not drinking in the last 30 days, while 1.1% (n=13) reported drinking on 1 or 2 days in the last 30 days. The sources of alcohol included respondents buying it directly from the shops, getting it from a public event, or from someone else, including friends and family members. In terms of peer pressure, 95.3% (n=1201) of respondents reported no peer pressure from others to drink alcohol, while about 4.1% (n=52) reported a little pressure. In addition, 94.6% (n=1192) reported that they had never felt peer pressure to drink, and 3.8% (n=48) reported feeling pressure sometimes.

Table 19.3 Drinking Alcohol History (N=1260)

Variable	Frequency *n (%)*
Ever tried alcohol	
Yes	74 (5.9)
No	1186 (94.13)
Age at first tried alcohol	
8 years old or younger	10 (0.8)
9 or 10 years old	5 (0.40)
11 or 12 years old	16 (1.3)
13 or 14 years old	23 (1.8)
15 or 16 years old	19 (1.5)
17 years old or older	1 (0.1)
Not applicable	1186 (94.1)
Number of days had alcohol other than a few sips	
1 or 2 days	65 (5.2)
3 to 9 days	7 (0.6)
10 to 19 days	1 (0.1)
20 to 39 days	0 (0.0)
40 to 99 days	0 (0.0)
100 or more days	1 (0.1)
Not applicable	1186 (94.2)
Number of days had alcohol in the past 30 days	
0 days	59 (4.7)
1 or 2 days	13 (1.1)
3 to 5 days	1 (0.1)
6 to 9 days	1 (0.1)
Not applicable	1186 (94.1)

Variable	Frequency *n (%)*
Source of alcohol	
I bought it in a shop	1 (0.1)
I bought it at a restaurant, bar, or club	0 (0.0)
I got it at a public event such as a concert, sporting event or wedding.	3 (0.2)
I gave someone else money to buy it for me	0 (0.0)
My friend gave it to me	1 (0.1)
Someone gave it to me	2 (0.2)
I took it from a family member	5 (0.4)
I got it some other wat	3 (0.2)
How much peer pressure is there on people your age to drink alcohol?	
None	1201 (95.3)
A little	52 (4.1)
A moderate amount	2 (0.2)
A lot	5 (0.4)
A great deal	0 (0.0)
How often do you feel peer pressure to drink alcohol?	
Never	1192 (94.6)
Sometimes	48 (3.8)
About half the time	6 (0.5)
Most of the time	11 (0.9)
Always	3 (0.2)

Other than marijuana, cigarettes and alcohol, none of the respondents reported using anything else/any other drug with the purpose of getting high. However, when asked about the pressure to smoke this (unknown) drug, 2.54% (n=32) of respondents reported experiencing a little peer pressure, 2.8% (n=35) reported feeling this pressure sometimes, and 3% (n=38) reported that less than half of their closest friends smoke this drug. The results are presented in Table 19.4.

Table 19.4 Peer Pressure (N=1260)

Variable	Frequency n (%)
Other than marijuana, cigarettes and alcohol, have you ever used anything/any other drug to make you high?	
No	1260 (100)
How much peer pressure is there on people your age to smoke this drug?	
None	1223 (97.1)
A little	32 (2.5)
A moderate amount	3 (0.2)
A lot	1 (0.1)
A great deal	1 (0.1)
How often do you feel peer pressure to smoke this drug?	

Never	1218 (96.7)
Sometimes	35 (2.8)
About half the time	1 (0.1)
Most of the time	3 (0.2)
Always	3 (0.2)
Of your closest friends, how many smoke this drug?	
None	1196 (94.9)
Less than half	38 (3.0)
About half	15 (1.2)
More than half	11 (0.9)

School Safety

Respondents were asked about school safety. Of the total 1260 respondents, 90.8% (n=1144) reported that they had never missed school because they felt they would be unsafe at school or on the way. About 4.5% (n=57) of participants reported missing at least one day, and 0.6% (n=7) reported missing 6 days or more due to safety reasons in the past 30 days. In addition, 8.3% (n=105) reported being threated or injured by someone else at school at least one time, and 0.2% (n=3) participants reported being threated or injured 12 times or more in the past year.

Table 19.5 School Safety (N=1260)

During the past 30 days, on how many days did you not go to school because you felt you would be unsafe at school of on your way to or from school?	Frequency n (%)
0 days	1144 (90.8)
1 day	57 (4.5)
2 or 3 days	39 (3.1)
4 or 5 days	13 (1.0)
6 or more days	7 (0.6)
During the past 12 months, how many times has someone threatened or injured you with a weapon such a knife or club at school	
0 times	1076 (85.4)
1 time	105 (8.3)
2 or 3 times	51 (4.0)
4 or 5 times	19 (1.5)
6 or 7 times	2 (0.2)
8 or 9 times	1 (0.1)
10 or 11 times	3 (0.2)
12 or more times	3 (0.2)

20. SEXUAL RISK BEHAVIORS

Adolescence is a crucial period of development in which individuals often establish intimate relationships, begin initiating sexual activity and consider future goals.[79-81] In this study,

respondents' sexual risk and risk-taking behaviors were assessed using items tested in our previous Bridges and Suubi studies in Uganda.[33-34, 44-47,51,52] Other items were adapted from the Violence Against Children Survey.[82]

Respondents were asked several questions regarding their romantic relationships and history of sexual activity. Specifically, respondents were asked what the most appropriate age to have a romantic partner, boy/girlfriend was. Ages ranged between 2 to 93 years. With the majority of participants (30.4%, n=383) reporting 18 years, and 20.2% (n=255) reporting 25 years. Respondents were then asked whether they had ever kissed someone in a romantic way; 2.6% (n=33) answered affirmatively, of which, 1.5% (n=19) reported that they had ever kissed a boy, and 0.6% (n=7) reported that they had ever kissed a girl in a romantic way.

In addition, respondents were also asked about the most appropriate age for one to willingly choose to have sex. Ages ranged from 1 to 50, with the majority of respondents (29.8%, n=376) reporting 18 years, and 17.5% (n=221) reporting 25 years. About 3.3% (n=42) of respondents reported that they had engaged in sexual intercourse, with 26.2% (n=11) reporting their first sexual debut at 15 years. When asked about the number of sexual partners, 78.6%% (n=33) reported 1 person, 8 respondents reported 2 persons, and 1 respondent reported 6 or more sexual partners, over their lifetime. In addition, 27 (64%) of respondents reported that they had willingly had sex and36% (n=15) reported incidences of having sex unwillingly. No respondent reported drinking alcohol or using drugs prior to sexual intercourse.

Further, respondents were asked to report on the methods of protection used during their last sexual encounter. Half of the respondents (50%, n=21) reported that their partner used a condom, and the other half (n=21) did not. When asked about the methods used to prevent pregnancy, 4 respondents reported the "pulling out" method, 19 respondents reported using condoms, 3 reported birth control, and 10 reported no method used.

Respondents were also asked about the sexual activity of their closest friends. The majority of respondents 74.7% (n=941) thought that none of their closest friends ever had sex, 3.8% (n= 48) reported more than half, and 5.7% (n=15) reported that all their friends had had sex.

Incidence of Sexual Assault/Abuse

In regard to the propensity for sexual acts, 15.5% (n=195) of the respondents reported that they had been touched without their consent in a way that made them feel uncomfortable such pinching, grabbing or fondling. About 9.7% (n= 122) reported having been touched at least once, 4.9% (n=61) two to three times, 0.6% (n=7) four to five times, and 0.4% (n=5) more than six times. When asked about the source of this abuse, 1.9% (n=24) reported a romantic partner/friend, 0.6% (n=7) reported a parent, caregiver or other relative, 0.2% (n=3) reported a member or an armed group, 9.9% (n=125) reported a friend or neighbor, and 0.6% (n=8)

reported an official. Other individuals included, a stranger, classmate/fellow student, teacher or a community member.

In addition, 7.9% (n=99) of the total respondents reported sexual coercion, specifically, that a person used their influence or authority to threaten or pressure the girl to do sexual acts against her will, including kissing, touching, or being physically forced to have sexual intercourse. Among those who reported, 5% (n=63) reported that this happened at least 1 time, 2.4% (n=30) reported happening 2 to 3 times, 0.4% (n=5) reported 4 to 5 times, and 1 respondent reported the incident occurring 6 times or more. When asked about the source of this coercion, 12 respondents reported a romantic partner/friend, 5 reported a parent/caregiver or other relative, 1 reported a member or an armed group, 50 respondents reported a friend or neighbor, and 3 reported an official.

Of the total 1260 respondents, 10.6% (n=133) reported receiving money, food, gifts or other favors in exchange for sex. Out of these, 53 respondents reported this happening at least 1 time, 63 reported 2 to 3 times, 12 reported 4 to 5 times, and 5 respondents reported this happening 6 times or more. About 6.4% (n=81) reported the incident happening in the past 12 months.

Romantic Relationship Patterns

Respondents were asked to report on their normative romantic sequence experience. About 7.06% (n=89) reported romantic relationships, lasting between 1 month and 8 years, the age range for romantic partners was between 14 and 35 years. About 1.8% (n=22) reported sexual intercourse with their romantic friend, only 1 respondent lived with their partner. None of the respondents was married or had children.

Pressure to Engage in Sexual Risk-taking Behaviors

Respondents were asked to report on their experience of peer and parent pressure to engage in sexual taking behaviors. Of the total 1260 respondents, 80% (n=1008) reported no pressure at all, 12.9% (n=162) reported a little peer pressure to have sex, 17.3% (n=218) reported sometimes experiencing peer pressure to have a romantic partner, and 1.3% (n=17) reported sometimes experiencing pressure from their guardian/parent to get married. Results are presented in Table 20.1.

Table 20.1 Experience of Peer and Parent Pressure (N=1260)

Variable	Frequency n (%)
How much peer pressure is there on people your age to have sex?	
None	1008 (80.0)
A little	162 (12.9)
A moderate amount	48 (3.8)
A lot	32 (2.5)
A great deal	10 (0.8)
How often do you feel peer pressure to have a romantic partner (boyfriend/girlfriend)?	
Never	993 (78.8)
Sometimes	218 (17.3)
About half the time	23 (1.8)
Most of the time	16 (1.3)
Always	10 (0.8)
How often does your guardian/parent pressure you to get married?	
Never	1233 (97.9)
Sometimes	17 (1.3)
About half the time	5 (0.4)
Most of the time	2 (0.2)
Always	3 (0.2)

Sexual Communication Skills

Questions in this section were adapted from the Couples Communication Scale.[75] Respondents were asked to rate how they communicate about sex with their partner(s). Items were rated on a 5-point Likert scale, with 1=*never*, 2=*sometimes*, 3=*about half of the time*, 4=*most of the time*, and 5=*always*. The theoretical range for this scale is 5-50, with high scores indicating higher levels of sexual communication. The scale demonstrated a high internal consistency (Cronbach's alpha = 1.00). The overall mean score was 21.6 (SD=9.1; actual range 10-41). Table 20.2 presents the mean scores and standard deviations for each item and the overall mean score of the sexual communication skills scale. Respondents scored moderately on items related to condom use, including insisting on using condom use, even when the romantic partner does not want to, or when the respondent or their romantic partner was under alcohol or drug use. Individual responses are presented in the Table A.20 of the Appendix.

Table 20.2 Sexual Communication Scale (N=42)

Statement	Mean (SD)
Can you communicate with your romantic partner/friend about when to have sexual intercourse?	2.00 (1.18)
Can your romantic partner/friend communicate with you about when to have sexual intercourse?	1.83 (1.08)
Does your romantic partner/friend take into account your opinion regarding your sexual desires?	2.09 (1.43)
Do you feel comfortable talking with your romantic partner/friend about your sexual relationship?	1.95 (1.43)
Can you discuss condom use with your romantic partner/friend?	2.59 (1.58)
Can you insist on condom use if your romantic partner /friend does not want to use one?	2.64 (1.62)
Can you stop and look for condoms when you're sexually aroused?	2.09 (1.45)
Can you insist on condom use every time even when you are under the influence of alcohol or drugs?	2.14 (1.65)
Can you insist on condom use every time when your romantic partner/friend is under the influence of alcohol or drugs?	2.45 (1.65)
Can you put a condom on your romantic partner/friend without spoiling the mood?	1.78 (1.32)
Total Mean Score	**21.6 (9.1)**
Range	**10-41**

Note: The scale was only answered by participants who had ever had sex

Sexual-Risk Taking Intentions

Tested in our previous Bridges and Suubi studies in Uganda,[33-34, 44-47,51,52] intentions to engage in sexual-risk taking behaviors were assessed by asking respondents to rate how several sexual-activity related statements applied to them. Items were rated on a 5-point Likert scale, with 1=*never*, 2=*sometimes*, 3=*about half of the time*, 4=*most of the time* and 5=*always*. The theoretical range for this scale is 5-25, with high scores indicating high sexual risk-taking intentions. The scale demonstrated a high internal consistency (Cronbach's alpha = 0.73). The overall mean score was 7.5 (SD = 3.74; actual range 5-25) indicating low sexual risk-taking intentions among respondents at baseline. Table 20.4 presents the mean scores and standard deviations for each item and the overall mean score of the sexual risk-taking intention scale. Individual responses are presented in the Table A.21 of the Appendix.

Table 20.4 Sexual Risk-taking Intention (N=1260)

Statement	Mean (SD)
Ok for people my age to have sex with someone they've just met. *	4.55 (1.07)
Ok for people my age to have sex with someone they love. *	4.48 (1.07)
Ok for people my age to have sex before marriage. *	4.41 (1.12)
Ok for people my age to force a boy/ girlfriend to have sex when they don't want to. *	4.49(1.08)
Ok for people child's age to have sex without protection with someone they know. *	4.53(1.06)

*Item has been reverse coded so that higher scores represent higher school satisfaction.

21. CONCLUSION

This report presented baseline survey data on the 1260 adolescent girls enrolled in the Suubi4Her study, prior to economic empowerment and multiple family group interventions. The report provides a detailed understanding of participants in the following key areas: demographics, community background and satisfaction, family background and functioning, social support, educational outcomes and plans, poverty and asset ownership, financial saving habits, physical and mental health, menstruation practices, gender roles/norms, electronic victimization, and youth sexual risk behaviors. These baseline data acts as benchmarks from which change will be measured, at 12, 24 and 36-months-post intervention, between the usual care and treatment conditions. Given that data was self-recorded, social desirability is a potential limitation. Overall, the baseline survey data illustrates how adolescent girls currently view themselves, their families, their communities, and their futures.

22. APPENDIX: EXTENDED TABLES

Table A.1. Distance to Community Resources (N=1260)

Community Resource	Near (About 0-2 kms) *n (%)*	Far (Over 2 kms) *n (%)*	Not Applicable *n (%)*
Secondary School	712 (56.5)	548 (43.5)	0 (0.0)
Medical Institution	1015 (80.6)	245 (19.4)	0 (0.0)
Bank	91 (7.2)	367 (29.1)	802 (63.7)
Clean Water	1062 (84.3)	87 (6.9)	111 (8.8)

Table A.2. Community Satisfaction (N=1260)

Statement	Always *n (%)*	Most of the time *n (%)*	About half of the time *n (%)*	Sometimes *n (%)*	Never *n (%)*
I like where I live	636 (50.5)	252 (20.0)	146 (11.6)	201 (15.9)	25 (1.98)
I wish I lived in a different house*	85 (6.8)	93 (7.4)	45 (3.6)	298 (23.7)	739 (58.7)
I wish I lived in another village*	105 (8.33)	96 (7.6)	85 (6.8)	341 (27.1)	633 (50.2)
I like my village	580 (46.0)	233 (18.5)	146 (11.6)	210 (16.7)	91 (7.2)
I like my neighbors	600 (47.6)	226 (17.9)	129 (10.2)	244 (19.4)	61 (4.8)
This village is filled with not nice people*	163 (12.9)	154 (12.2)	106 (8.4)	436 (34.6)	401 (31.8)
My family's house is nice	534 (42.4)	174 (13.8)	118 (9.4)	283 (22.5)	151 (11.9)
There are a lot of fun things to do where I live	439 (34.8)	224 (17.8)	137 (10.9)	358 (28.4)	102 (8.10)

*Item was reverse-coded so that higher scores reflect higher level of community satisfaction.

Table A.3. Family Cohesion (N=1260)

Statement	Always *n (%)*	Most of the time *n (%)*	About half the time *n (%)*	Sometimes *n (%)*	Never *n (%)*
Do your family members ask each other for help before asking non-family members for help?	547 (43.4)	269 (21.4)	81(6.4)	287 (22.8)	76 (6.0)
Do your family members like to spend free time with each other?	599 (47.5)	270 (21.4)	123 (9.8)	220 (17.5)	48 (3.8)
Do your family members feel close to each other?	560 (44.4)	264 (20.9)	124 (9.8)	243 (19.29)	69 (5.5)
Are you available when others in the family want to talk to you?	459 (36.4)	223 (17.7)	89 (7.1)	385 (30.6)	104 (8.3)
Do you listen to what other family members have to say, even when you disagree?	537 (42.6)	245 (19.4)	101 (8.0)	254 (20.2)	123 (9.8)
Do you do things together as a family?	632 (50.2)	261 (20.7)	113 (8.9)	218 (17.3)	36 (2.9)
Do you think that your family member loves you?	656 (52.1)	279 (22.1)	107 (8.5)	193 (15.3)	25 (1.9)

Table A.4 Family Care and Relationships (N=1260)

Statement	Always *n (%)*	Most of the time *n (%)*	About half the time *n (%)*	Sometimes *n (%)*	Never *n (%)*
Do your parent(s)/guardians take time to listen to you when you want to talk to them?	654 (51.9)	245 (19.4)	101 (8.02)	215 (17.1)	45 (3.6)
If you have a problem, how often do your parents/guardians offer to help?	595 (47.2)	266 (21.1)	146 (11.6)	220 (17.5)	33 (2.6)
Over the past 3 months, how often have you gone without enough food to eat? *	89 (7.1)	66 (5.2)	37 (2.9)	173 (13.7)	895 (71.0)
Over the past 3 months, how often have you gone without enough clean water? *	98 (7.8)	90 (7.1)	36 (2.9)	252 (20.0)	784 (62.2)
Over the past 3 months, how often have you gone without medicine? *	84 (6.7)	85 (6.8)	55 (4.4)	300 (23.8)	736 (58.4)
Over the past 3 months, how often have you gone without school expenses for fees, uniforms or books? *	79 (6.3)	134 (10.6)	56 (4.4)	391 (31.0)	600 (47.6)

*Item was reverse-coded so that higher scores reflect higher level of family care and relationships.

Table A.5. Frequency of Conversation with Caregiver (N=1260)

Statement	Always *n (%)*	Most of the time *n (%)*	About half the time *n (%)*	Sometimes *n (%)*	Never *n (%)*
Alcohol/Drinking	78 (6.2)	68 (5.4)	26 (2.1)	178 (14.1)	910 (72.2)
Cigarette Smoking	65 (5.2)	59 (4.7)	24 (1.9)	108 (8.6)	1004 (79.7)
HIV or AIDS	161 (12.8)	134 (10.6)	43 (3.4)	229 (18.2)	693 (55.0)
Sexually transmitted diseases (STDs)	153 (12.1)	138 (10.9)	48 (3.8)	288 (22.9)	633 (50.2)
Having sex	151 (11.9)	128 (10.2)	59 (4.7)	180 (14.3)	742 (58.9)
Bad friends	201 (15.9)	134 (10.6)	59 (4.7)	262 (20.8)	604 (47.9)
Your education	597 (47.4)	311 (24.7)	106 (8.4)	180 (14.3)	66 (5.2)
Puberty	347 (27.5)	236 (18.7)	87 (6.9)	367 (29.1)	223 (17.7)
What you will do to earn a living in the future?	494 (39.2)	307 (24.4)	111 (8.8)	262 (20.8)	86 (6.8)
How to avoid getting pregnant?	436 (34.6)	263 (20.9)	102 (8.1)	213 (16.9)	246 (19.5)
Marriage	96 (7.62)	72 (5.71)	35 (2.9)	170 (13.5)	887 (70.4)

Table A.6. Level of Comfort Communication with Caregiver (N=1260)

Statement	Very Comfortable *n (%)*	Somewhat Comfortable *n (%)*	Somewhat Uncomfortable *n (%)*	Very Uncomfortable *n (%)*
Alcohol/Drinking	169 (13.4)	56 (4.44)	400 (31.8)	635 (50.4)
Cigarette Smoking	147 (11.7)	56 (4.44)	376 (29.8)	681 (54.1)
HIV or AIDS	215 (17.1)	114 (9.05)	368 (29.21)	563 (44.7)
Sexually transmitted diseases	206 (16.4)	145 (11.5)	395 (31.4)	514 (40.8)
Having sex	158 (12.5)	74 (5.87)	434 (34.4)	594 (47.1)
Bad friends	185 (14.7)	107 (8.49)	439 (34.8)	529 (41.9)
Your education	1062 (84.3)	143 (11.4)	30 (2.38)	25 (1.9)
Puberty	453 (35.9)	444 (35.2)	182 (14.4)	181 (14.4)
What you will do to earn a living in the future?	997 (79.1)	214 (16.9)	27 (2.14)	22 (1.75)
How to avoid getting pregnant?	715 (56.8)	226 (17.9)	133 (10.6)	186 (14.8)
Marriage	189 (15.0)	184 (14.6)	326 (25.9)	561 (44.5)

Table A.7. Perceived Caregiver Support (N=1260)

Statement	Always *n (%)*	Most of the time *n (%)*	About half the time *n (%)*	Sometimes *n (%)*	Never *n (%)*
Can you count on your current parent(s)/ guardian(s) to help you out, if you have a problem?	637 (50.6)	319 (25.3)	95 (7.54)	181(14.4)	28 (2.22)
Do your current parent(s)/guardian(s) say that you shouldn't argue with adults?*	536 (42.5)	333 (26.4)	98 (7.78)	193 (15.3)	100 (7.94)
Do your current parent(s)/guardian(s) keep challenging you to do your best in whatever you do?	687 (54.5)	326 (25.9)	133 (10.6)	101(8.02)	13 (1.03)
Do your current parent(s)/guardian(s) say that you should give in on arguments rather than make people angry? *	389 (30.9)	253 (20.1)	112 (8.9)	316 (25.1)	190 (15.1)

Do your current parent(s)/guardian(s) keep challenging you to think independently?	223 (17.7)	144 (11.4)	73 (5.8)	335 (26.6)	485 (38.5)
Do your current parent(s)/guardian(s) show interest in your work (whatever you do)?	646 (51.3)	326 (25.9)	117 (9.3)	139 (11.0)	32 (2.5)
Do your current parent(s)/guardian(s) show interest in your homework (for children who are in school)?	600 (47.6)	306 (24.3)	117 (9.3)	191 (15.2)	46 (3.7)
Do your current parent(s)/guardian(s) tell you that their ideas are correct and that you should not question them?*	190 (15.1)	147 (11.7)	69 (5.5)	358 (28.4)	496 (39.4)
When your current parent(s)/guardian(s) wants you to do something, do they explain why?	494(39.2)	266 (21.1)	112 (8.9)	303 (24.05)	85 (6.8)
Whenever you argue with your current parent(s)/guardian(s), do they say things like, "You'll know better when you grow up"?*	214 (16.9)	162 (12.9)	68 (5.4)	345 (27.4)	471 (37.4)
Do your current parent(s)/guardian(s) let you make your own plans for things you want to do?	152 (12.1)	126 (10.0)	58 (4.6)	318 (25.2)	606 (48.1)
Do your current parent(s)/guardian(s) know who your friends are?	431 (34.2)	264 (20.9)	88 (6.9)	333 (26.4)	144 (11.4)
Do your current parent(s)/guardian(s) act cold and unfriendly if you do something they don't like?*	455 (36.1)	267 (21.2)	122 (9.7)	221 (17.5)	195 (15.5)
Do your current parent(s)/guardian(s) spend time just talking with you?	501 (39.8)	299 (23.7)	106 (8.4)	302 (23.9)	52 (4.1)
When you make a mistake, do your current parent(s)/guardian(s) make you feel bad about it? *	324 (25.7)	225 (17.9)	109 (8.7)	369 (29.3)	233 (18.5)

Do your current parent(s)/guardian(s) do things for fun together as a family?	471 (37.4)	306 (24.3)	109 (8.7)	286 (22.7)	88 (6.9)
Do your current parent(s)/guardian(s) stop you from doing things with them when you do something they don't like? *	151(11.9)	127 (10.1)	49 (3.9)	351 (27.9)	582 (46.2)

*Item was reverse-coded so that higher scores reflect higher perceived caregiver(s) support.

Table A.8. Social Support and Relationships (N=1260)

Statement	Always *n (%)*	Most of the time *n (%)*	About half the time *n (%)*	Sometimes *n (%)*	Never *n (%)*
Parents /Guardian					
Some youth have parent(s) or guardian(s) who don't really understand them. *	52 (4.1)	77 (6.1)	56 (4.4)	302 (23.9)	773 (61.4)
Some youth have parent(s) or guardian(s) who don't seem to want to hear about their children's problems. *	71 (5.6)	99 (7.9)	48 (3.8)	279 (22.1)	763 (60.6)
Some youth have parent(s) or guardian(s) who care about their feelings.	511 (40.6)	281 (22.3)	109 (8.7)	250 (19.8)	109 (8.7)
Some youth have parents or guardians who treat their children like a person who really matters.	580 (46.1)	318 (25.2)	131 (10.4)	170 (13.5)	61 (4.8)
Some youth have the current parent(s) or guardian(s) who like them the way they are.	520 (41.3)	294 (23.3)	113 (8.9)	245 (19.4)	88 (6.9)
Some youth have the current parent(s), or guardian(s) who don't act like what their children do is important. *	154 (12.2)	129 (10.2)	90 (7.1)	374 (29.7)	513 (40.7)
Classmate					
Some youth have classmates who like them the way they are.	296 (23.5)	209 (16.6)	69 (5.5)	413 (32.8)	273 (21.7)
Some youth have classmates that they can become friends with.	403 (31.9)	278 (22.1)	119 (9.4)	358 (28.4)	102 (8.10)
Some youth have classmates who sometimes make fun of them. *	76 (6.03)	121 (9.6)	66 (5.2)	376 (29.8)	621 (49.3)
Some youth have classmates who pay attention to what they say.	405 (32.1)	292 (23.2)	135 (10.7)	344 (27.3)	84 (6.67)

Some youth don't get asked to play games with classmates very often. *	92 (7.3)	123 (9.8)	95 (7.5)	386 (30.6)	564 (44.8)
Teachers					
Some youths have a teacher who helps them if they are upset.	383 (30.4)	294 (23.3)	121 (9.6)	355 (28.2)	107 (8.5)
Some youths don't have a teacher who helps them do their best*	88 (6.9)	106 (8.4)	82 (6.51)	332 (26.4)	652 (51.8)
Some youths do have a teacher who cares about them.	445 (35.3)	301 (23.9)	114 (9.1)	303 (24.1)	97 (7.7)
Some youths don't have a teacher who is fair to them.*	79 (6.3)	112 (8.9)	70 (5.6)	385 (30.6)	614 (48.7)
Some youths don't have a teacher who cares if they feel bad.*	91 (7.2)	140 (11.1)	77 (6.1)	330 (26.2)	622 (49.4)
Some youths have a teacher who treats them like a person.	501 (39.8)	333 (26.4)	133 (10.6)	224 (17.8)	69 (5.5)
Friends/peers					
Some youth have a close friend who they can tell *problems* to.	419 (33.3)	302 (23.9)	105 (8.3)	356 (28.3)	78 (6.2)
Some youth have a close friend who really understands them.	325 (25.8)	249 (19.8)	118 (9.4)	383 (30.4)	185 (14.7)
Some youth have a close friend who they can talk to about things that bother them.	367 (29.1)	278 (22.1)	138 (10.9)	389 (30.9)	88 (6.9)
Some youth don't have a close friend who they like to spend time with. *	87 (6.9)	121 (9.6)	97 (7.7)	388 (30.8)	567 (45.0)
Some youth don't have a close friend who really listens to what they say. *	83 (6.6)	148 (11.8)	84 (6.7)	377 (29.9)	568 (45.1)
Some youth often spend holidays being alone. *	103 (8.2)	144 (11.4)	73 (5.8)	365 (28.9)	575 (45.6)
Some youth don't have a close friend who cares about their feelings. *	91 (7.2)	130 (10.3)	88 (6.9)	366 (29.1)	585 (46.4)

Table A.8 CONTINUED

Statement	Always *n (%)*	Most of the time *n (%)*	About half the time *n (%)*	Sometimes *n (%)*	Never *n (%)*
Sometimes groups of youth hit people. *	59 (4.7)	74 (5.9)	54 (4.3)	205 (16.3)	868 (68.9)
Sometimes youth, even friends, are hurting other youth. Somewhere like: at home, at school, out playing, or somewhere else. *	72 (5.7)	116 (9.2)	67 (5.3)	310 (24.6)	695 (55.2)
Sometimes youth, even friends, try to hurt other youth' private parts on purpose by hitting or kicking them there. *	43 (3.4)	93 (7.4)	45 (3.6)	228 (18.1)	851 (67.5)
Sometimes youth, even friends, pick on other youth by chasing or grabbing or by making them do something they don't want to do. *	39 (3.1)	93 (7.4)	58 (4.6)	252 (20.0)	818 (64.9)
Sometimes youth are scared or feel really bad because other youths are calling them names, saying mean things to them, or saying they do not want them around. *	70 (5.6)	150 (11.9)	76 (6.1)	366 (29.1)	598 (47.5)
Sometimes, even boyfriend or girlfriend slap or hit their romantic partner. *	40 (3.2)	59 (4.7)	26 (2.1)	179 (14.2)	956 (75.9)

*Item has been reverse-coded, so that higher scores represent higher social support.

Table A.9a School Satisfaction (N=1260)

Variable	Almost Always *n (%)*	Often *n (%)*	Sometimes *n (%)*	Almost Never *n (%)*	Never *n (%)*
I look forward to going to school each day.	859 (68.2)	349 (27.7)	44 (3.5)	2 (0.2)	6 (0.5)
I like being in school.	849 (67.4)	362 (28.7)	41 (3.3)	4 (0.3)	4 (0.3)
School is interesting.	755 (59.9)	319 (25.3)	164 (13.0)	13 (1.1)	9 (0.7)
I wish I didn't have to go to school. *	35 (2.8)	45 (3.6)	113 (8.9)	57 (4.5)	1010 (80.2)
There are many things about school I don't like. *	82 (6.5)	122 (9.7)	522 (41.4)	62 (4.9)	472 (37.5)
I enjoy school activities.	610 (48.4)	343 (27.2)	271 (21.5)	14 (1.1)	22 (1.75)
I learn a lot at school.	732 (58.1)	363 (28.8)	139 (11.0)	14 (1.1)	12 (0.95)
I feel bad at school. *	47 (3.7)	39 (3.1)	134 (10.6)	56 (4.4)	984 (78.1)

* Item has been reverse-coded, so that higher scores represent higher school satisfaction.

Table A.9b Pediatric Quality of Life (N=1260)

Variable	Almost Always *n (%)*	Often *n (%)*	Sometimes *n (%)*	Almost Never *n (%)*	Never *n (%)*
It is hard for me to pay attention in class. *	157 (12.5)	101 (8.1)	157 (12.5)	57 (4.5)	788 (62.5)
I am forgetful. *	58 (4.6)	127 (10.1)	573 (45.5)	69 (5.5)	433 (34.4)
I miss school because of poor physical health condition. *	116 (9.2)	132 (10.5)	564 (44.8)	42 (3.3)	406 (32.2)
I miss school to go to the doctor, clinics or hospital. *	150 (11.9)	149 (11.8)	544 (43.2)	41 (3.3)	376 (29.8)

* Item has been reverse-coded, so that higher scores represent higher quality of life.

Table A.10 Importance of Saving for a Specific Goal (N=1260)

Variable	Extremely Important *n (%)*	Very Important *n (%)*	Somewhat Important *n (%)*	Not Very Important *n (%)*	Not Important at all *n (%)*
Saving money for a family business is:	749 (59.4)	459 (36.4)	33 (2.6)	15 (1.2)	4 (0.3)
Saving money for one's personal educational opportunities is:	672 (53.3)	516 (40.9)	59 (4.7)	12 (0.9)	1 (0.1)
Saving money for family use is:	570 (45.2)	489 (38.8)	141 (11.2)	52 (4.1)	8 (0.6)
Saving money to buy an animal is:	596 (47.3)	543 (43.1)	81 (6.4)	36 (2.9)	4 (0.3)

Saving money to move into one's own home is:	459 (36.4)	426 (33.8)	163 (12.9)	135 (10.7)	77 (6.1)

Table A.11 Confidence in Ability to Save (N=1260)

Variable	Extremely confident *n (%)*	Very confident *n (%)*	Somewhat confident *n (%)*	Not Very confident *n (%)*	Not confident at all *n (%)*
Save money for a family business	622 (49.4)	247 (19.6)	225 (17.9)	92 (7.3)	74 (5.9)
Save money for personal educational opportunities	702 (55.7)	280 (22.2)	190 (15.1)	62 (4.9)	26 (2.1)
Save money for family use	544 (3.17)	285 (22.6)	267 (21.2)	102 (8.1)	62 (4.9)
Save money to buy an animal such as a goat, pig, or cow	688 (54.6)	317 (25.2)	159 (12.6)	67 (5.3)	29 (2.3)
Save money to move into one's own home	433 (34.4)	216 (17.1)	301 (23.9)	146 (11.6)	164 (13.0)

Table A.12 Tennessee Self-Concept Scale (TSCS) (N=1260)

Statement	Always True *n (%)*	Usually True *n (%)*	Sometimes True/ Sometimes False *n (%)*	Usually False *n (%)*	Always False *n (%)*
I like the way I look.	819 (65.0)	234 (18.6)	124 (9.8)	51 (4.1)	32 (2.5)
I have a happy family.	790 (2.7)	257 (20.4)	127 (10.1)	51 (4.1)	35 (2.8)
I don't sleep well. *	571 (45.3)	192 (15.2)	187 (14.8)	177 (14.1)	133 (10.6)
It's hard for me to do what's right. *	583 (46.8)	162 (12.9)	208 (16.5)	155 (12.3)	152 (12.1)
I know as much as the other children in my class.	636 (50.5)	315 (25.0)	161 (12.8)	78 (6.2)	70 (5.6)
I'm happy with who I am.	838 (66.5)	231 (18.3)	121 (9.6)	39 (3.1)	31 (2.5)
I don't feel as well as I should. *	459 (36.4)	174 (13.8)	253 (20.1)	246 (19.5)	128 (10.2)
It's hard for me to be around other people. *	576 (45.7)	175 (13.9)	176 (13.9)	204 (16.2)	129 (10.2)
I don't do well in school, even when I try. *	686 (54.4)	170 (13.5)	193 (15.3)	139 (10.8)	75 (5.9)
I really care about my family.	824 (65.4)	221 (17.5)	115 (9.1)	49 (3.9)	51 (4.1)
I'm as nice as I should be.	752 (59.7)	250 (19.8)	147 (11.7)	69 (5.5)	42 (3.3)
I don't feel happy when I'm with other people. *	600 (47.6)	175 (13.9)	196 (15.6)	180 (14.3)	109 (8.7)
It's hard for someone to be my friend. *	579 (45.9)	171 (13.6)	205 (16. 3)	168 (13.3)	137 (10.9)
My family doesn't trust me. *	840 (66.7)	118 (9.4)	128 (10.2)	104 (8.3)	70 (5.6)
My teacher thinks I am smart.	511 (40.6)	310 (24.6)	219 (17.4)	90 (7.1)	130 (10.3)
I get along well with other people.	807 (64.1)	257 (20.4)	114 (9.05)	52 (4.1)	30 (2.4)
I hate myself. *	701 (55.6)	165 (13.1)	176 (13.9)	135 (10.7)	83 (6.6)
I'm not the person I would like to be. *	594 (47.1)	175 (13.9)	190 (15.1)	164 (13.0)	137 (10.9)
I'm an honest person.	813 (64.5)	262 (20.8)	97 (7.7)	47 (3.7)	41 (3.3)
I feel good most of the time.	778 (61.8)	281 (22.3)	116 (9.2)	47 (3.7)	38 (3.02)

*Item has been reverse-coded, so that higher scores represent higher level of self-satisfaction.

Table A.13 Beck's Hopelessness Scale (BHS) (N=1260)

Statement	True *n (%)*	False *n (%)*
I look forward to the future with hope and enthusiasm. *	1201 (95.3)	59 (4.7)
I might as well give up because there is nothing I can do about making things better for myself.	325 (25.8)	935 (74.2)
When things are going badly. I am helped by knowing that they cannot stay that way forever. *	909 (72.1)	351(27.9)
I can't imagine what my life will be like in ten years' time.	812 (64.4)	448 (35.6)
I have enough time to accomplish the things I want to do. *	1056 (83.8)	204 (16.2)
In the future, I expect to succeed in what concerns me most. *	1199 (95.2)	61 (4.8)
My future seems dark.	194 (15.4)	1066 (84.6)
I happen to be particularly lucky, and I expect to get more good things in life than the average person. *	1166 (92.5)	94 (7.5)
I just can't get breaks, and there is no reason I will in the future.	368 (29.2)	892 (70.8)
My past experiences have prepared me well for the future. *	1098 (87.1)	162 (12.9)
All I can see ahead is unpleasant rather that pleasant.	178 (14.1)	1082 (85.9)
I don't expect to get what I really want.	246 (19.5)	1014 (80.5)
When I look ahead to the future, I expect that I will be happier than I am now. *	1155 (91.7)	105 (8.3)
Things just won't work out the way I want them to.	412 (32.7)	848 (67.3)
I have great faith in the future. *	1142 (90.6)	118 (9.4)
I never get what I want, so it's foolish to want anything.	415 (32.9)	845 (67.1)
It's very unlikely that I will get any real satisfaction in the future.	391 (31.0)	869 (68.9)
The future seems vague and uncertain to me.	297 (23.6)	963 (76.4)
I can look forward to more good times than bad times. *	1118 (88.7)	142 (11.3)
There is no use in really trying to get anything I want because I probably won't get it.	361 (28.7)	899 (71.4)

*Item has been reverse-coded, so that higher scores represent higher level of hopelessness and pessimistic attitudes.

Table A.14 Rosenberg Self-Esteem Scale (RSES) (N=1260)

Variable	Strongly Agree *n (%)*	Agree *n (%)*	Disagree *n (%)*	Strongly Disagree *n (%)*	Don't Know *n (%)*	No response *n (%)*
I feel that I am equal to other people.	569 (47.2)	282 (23.4)	162 (13.4)	193 (16.0)	49 (3.9)	5 (0.4)
I feel that I have a number of good qualities.	527 (43.3)	311(25.6)	201(16.5)	178 (14.6)	42 (3.3)	1 (0.1)
I feel that I am a failure. *	82 (6.7)	114 (9.3)	476 (39.0)	548 (44.9)	34 (2.7)	6 (0.5)
I am able to do things as well as most other people.	735 (59.7)	378 (30.6)	58 (4.7)	63 (5.1)	23 (1.8)	3 (0.2)

I feel I have much to be proud of.	705 (57.0)	334 (27.0)	103 (8.3)	94 (7.6)	22 (1.8)	2 (0.2)
I take a positive attitude toward myself.	779 (62.6)	379 (30.5)	41 (3.3)	45 (3.6)	779 (61.8)	16 (1.3)
I am satisfied with myself.	755 (60.7)	356 (28.6)	69 (5.6)	63 (5.1)	16 (1.3)	1 (0.1)
I have a lot of respect for myself.	792 (63.5)	366 (29.4)	48 (3.9)	41 (3.3)	792 (62.9)	13 (1.1)
I feel that I am a useful person.	822 (65.9)	360 (28.9)	32 (2.6)	33 (2.7)	12 (0.9)	1 (0.1)
I think that I am a person who has value	811 (65.3)	367 (29.6)	37 (2.98)	27 (2.2)	811 (64.4)	18 (1.4)

*Item has been reverse-coded, so that higher scores represent higher level of self-reported self-esteem.

Table A.15 Beck's Depression Inventory (BDI) (N=1260)

Variable	Frequency *n (%)*
I do not feel sad.	655 (51.9)
I feel sad.	239 (18.9)
I am sad all the time, and I can't snap out of it.	169 (13.4)
I am so sad and unhappy that I can't stand it.	197 (15.6)
I am not particularly discouraged about the future.	903 (71.7)
I feel discouraged about the future.	166 (13.2)
I feel I have nothing to look forward to.	109 (8.7)
I feel the future is hopeless and that things cannot improve.	82 (6.5)
I do not feel like a failure.	
I feel I have failed more than the average person.	902 (71.6)
As I look back on my life, all I can see is a lot of failures.	162 (12.9)
I feel I am a complete failure as a person.	116 (9.2)
	80 (6.4)
I get as much satisfaction out of things as I used to.	
I don't enjoy things the way I used to.	676 (53.7)
I don't get real satisfaction out of anything anymore.	269 (21.3)
I am dissatisfied or bored with everything.	150 (11.9)
	165 (13.1)
I don't feel particularly guilty	
I feel guilty a good part of the time	537 (42.6)
I feel quite guilty most of the time	454 (36.1)
I feel guilty all of the time.	192 (15.2)
	77 (6.1)
I don't feel I am being punished.	
I feel I may be punished.	681 (54.1)
I expect to be punished.	211 (16.8)
I feel I am being punished.	251 (19.9)
	117 (9.3)
I don't feel disappointed in myself.	
I am disappointed in myself.	927 (73.6)
I am disgusted with myself.	132 (10.5)
I hate myself.	121 (9.6)
	80 (6.4)
I don't feel I am any worse than anybody else.	332 (26.4)
I am critical of myself for my weaknesses or mistakes.	194 (15.4)
I blame myself all the time for my faults.	434 (34.4)
I blame myself for everything bad that happens.	300 (23.8)

I don't have any thoughts of killing myself.	1016 (80.6)
I have thoughts of killing myself, but I would not carry them out.	144 (11.4)
I would like to kill myself.	51 (4.1)
I would kill myself if I had the chance.	49 (3.9)
I don't cry any more than usual.	
I cry more now than I used to.	644 (51.1)
I cry all the time now.	86 (6.8)
I used to be able to cry, but now I can't cry even though I want to.	77 (6.1)
	453 (35.9)
I am no more irritated by things than I ever was.	
I am slightly more irritated now than usual.	545 (43.3)
I am quite annoyed or irritated a good deal of the time.	132 (10.5)
I feel irritated all the time.	492 (39.1)
	91 (7.2)
I have not lost interest in other people.	460 (36.5)
I am less interested in other people than I used to be.	364 (28.9)
I have lost most of my interest in other people.	176 (13.9)
I have lost all of my interest in other people.	260 (20.6)
I make decisions about as well as I ever could.	682 (54.1)
I put off making decisions more than I used to.	179 (14.2)
I have greater difficulty in making decisions more than I used to.	222 (17.6)
I can't make decisions at all anymore.	177 (14.1)
I don't feel that I look any worse than I used to.	872 (69.2)
I am worried that I am looking old or unattractive.	92 (7.3)
I feel there are permanent changes in my appearance that make me look unattractive	216 (17.1)
I believe that I look ugly.	80 (6.4)
I can work about as well as before.	689 (54.7)
It takes an extra effort to get started at doing something.	169 (13.4)
I have to push myself very hard to do anything.	343 (27.2)
I can't do any work at all.	59 (4.7)
I can sleep as well as usual.	651 (51.7)
I don't sleep as well as I used to.	124 (9.8)
I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.	209 (16.6)
I wake up several hours earlier than I used to and cannot get back to sleep.	276 (21.9)

I don't get more tired than usual.	696 (55.2)
I get tired more easily than I used to.	186 (14.8)
I get tired from doing almost anything.	274 (21.8)
I am too tired to do anything.	104 (8.3)
My appetite is no worse than usual.	
My appetite is not as good as it used to be.	785 (62.3)
My appetite is much worse now.	281 (22.3)
I have no appetite at all anymore.	127 (10.1)
	67 (5.3)
I haven't lost much weight, if any, lately.	
I have lost more than five pounds.	865 (68.7)
I have lost more than ten pounds.	243 (19.3)
I have lost more than fifteen pounds.	108 (8.6)
	44 (3.5)
I am no more worried about my health than usual.	
I am worried about physical problems like aches, pains, upset stomach, or constipation.	739 (58.7)
	236 (18.7)
I am very worried about physical problems and it's hard to think of much else.	162 (12.9)
I am so worried about the physical problems that I cannot think of anything else.	123 (9.8)
I have not noticed any recent change in my interest in sex.	177 (14.1)
I am less interested in sex than I used to be.	72 (5.7)
I have almost no interest in sex.	534 (42.4)
I have lost interest in sex completely.	477 (37.9)

Table A.16 HIV/AIDS Prevention Attitudes (N=1260)

Variable	Agree a great deal *n (%)*	Agree a lot *n (%)*	Moderately agree *n (%)*	Agree a little *n (%)*	Not at all agree *n (%)*
As a teenager, I think AIDS is a threat to my health	976 (77.5)	93 (7.4)	38 (3.02)	26 (2.06)	127 (10.1)
I think all people my age who have sex should use condoms	631 (50.1)	98 (7.8)	88 (6.9)	79 (6.3)	364 (28.9)
I think the best way to avoid getting AIDS is not to have sex	932 (73.9)	109 (8.7)	57 (4.6)	39 (3.1)	123 (9.8)
Even if you know your partner very well, you should use condoms	699 (55.5)	122 (9.7)	74 (5.9)	67 (5.3)	298 (23.7)
I think it is very imported to use condoms every time one has sex	711 (56.4)	106 (8.4)	64 (5.1)	61 (4.9)	318 (25.2)

Table A.17 HIV/AIDS Prevention (N=1260)

Statement	True *n (%)*	False *n (%)*	Not Sure *n (%)*
Not having intercourse with anyone	1005 (79.8)	140 (11.1)	115 (9.13)
Using condoms	938 (74.4)	200 (15.9)	122 (9.7)
Having sexual intercourse with only one partner, who is not infected with HIV/AIDS	899 (71.4)	206 (16.4)	155 (12.3)

Table A.18 Gender Roles/Norms (N=1260)

Statement	Yes *n (%)*	No *n (%)*	Don't Know *n (%)*
Swearing is worse for a girl than for a boy.	552 (43.8)	537 (42.6)	171 (13.6)
On average, girls are as smart as boys. *	801 (63.6)	381 (30.2)	78 (6.2)
More encouragement in a family should be given to sons than daughters to go to college.	630 (50.0)	568 (45.1)	62 (4.9)
In general, the father should have greater authority than the mother in making family decisions.	1103 (87.5)	140 (11.1)	17 (1.4)
It is more important for boys than girls to do well in school.	466 (36.9)	754 (59.8)	40 (3.2)
Boys are better in school than girls.	511 (40.6)	711 (56.4)	38 (3.1)
It is all right for a girl to propose to a boy. *	209 (16.6)	951 (75.5)	100 (7.9)
Girls should be more concerned with becoming good wives and mothers, than desiring a professional or business career.	887 (70.4)	335 (26.6)	38 (3.1)
Girls should have the same freedoms as boys. *	915 (72.6)	329 (26.1)	16 (1.3)
It's alright for girls to carry condoms. *	329 (26.1)	838 (66.5)	93 (7.4)

*Item was reverse-coded so that higher scores reflect a more traditional attitude.

Table A.19 Gender Relation Scale (N=1260)

Statement	Agree *n (%)*	Disagree *n (%)*
It is a female's responsibility to avoid getting pregnant.	805 (63.9)	455 (36.1)
A male should have the final word about decisions in his home.	887 (70.4)	373 (29.6)
A female should tolerate violence to keep the family together.	584 (46.4)	676 (53.7)
It is OK for a male to hit his wife if she will not have sex with him.	176 (13.9)	1084 (86.0)
Males and females should share household chores. *	961(76.3)	299 (23.7)

*Item was reverse-coded so that higher scores reflect higher negative gender relations beliefs.

Table A.20. Sexual Communication Scale (N=42)

Statement	Always *n (%)*	Most of the time *n (%)*	About half the time *n (%)*	Sometimes *n (%)*	Never *n (%)*
Can you communicate with your romantic partner/friend about when to have sexual intercourse?	3 (7.1)	2 (4.8)	5 (11.9)	14 (33.3)	18 (42.9)
Can your romantic partner/friend communicate with you about when to have sexual intercourse?	2 (4.8)	1 (2.4)	6 (14.3)	12 (28.6)	21 (50.0)
Does your romantic partner/friend take into account your opinion regarding your sexual desires?	4 (9.5)	5 (11.9)	5 (11.9)	5 (11.9)	23 (54.8)
Do you feel comfortable talking with your romantic partner/friend about your sexual relationship?	5 (11.9)	3 (7.1)	2 (4.8)	7 (16.7)	25 (59.5)
Can you discuss condom use with your romantic partner/friend?	8 (19.1)	6 (14.3)	5 (11.9)	7 (16.7)	16 (38.1)
Can you insist on condom use if your romantic partner /friend does not want to use one?	8 (19.1)	8 (19.1)	4 (9.5)	5 (11.9)	17 (40.5)
Can you stop and look for condoms when you're sexually aroused?	5 (11.9)	4 (9.5)	3 (7.1)	8 (19.1)	22 (52.4)
Can you insist on condom use every time even when you are under the influence of alcohol or drugs?	8 (19.1)	3 (7.1)	2 (4.8)	3 (7.1)	26 (61.9)
Can you insist on condom use every time when your romantic partner/friend is under the influence of alcohol or drugs?	9 (21.4)	5 (11.9)	3 (7.1)	4 (9.5)	21 (50.0)
Can you put a condom on your romantic partner/friend without spoiling the mood?	5 (11.9)	0 (0.00)	2 (4.8)	9 (21.4)	26 (61.9)

Table A.21. Sexual Risk-Taking Intentions (N=1260)

Statement	Always *n (%)*	Most of the time *n (%)*	About half the time *n (%)*	Sometimes *n (%)*	Never *n (%)*
Ok for people my age to have sex with someone they've just met.	65 (5.2)	48 (3.8)	25 (1.9)	112 (8.9)	1010 (80.2)
Ok for people my age to have sex with someone they love.	57 (4.5)	60 (4.8)	40 (3.2)	162 (12.9)	941 (74.7)
Ok for people my age to have sex before marriage.	67 (5.3)	61 (4.8)	46 (3.7)	202 (16.0)	884 (70.2)
Ok for people my age to force a boy/ girlfriend to have sex when they don't want to.	59 (4.7)	60 (4.8)	42 (3.3)	148 (11.8)	951 (75.5)
Ok for people child's age to have sex without protection with someone they know.	57 (4.5)	58 (4.6)	30 (2.4)	132 (10.5)	983 (78.0)

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