





# LAUREUS SPORT FOR GOOD FOUNDATION

# EVALUATION OF SKILLZ GUYZ SPORT-BASED SEXUAL AND REPRODUCTIVE HEALTH PROGRAM FOR ADOLESCENT MALES

# FINAL REPORT

BY

Chukwudike Akanegbu, MSc M&E Coordinator, YEDI

Devyn Lee, MPH Research Officer, Grassroot Soccer

Olaoluwa Pheabian Akinwale, PhD Director of Research, NIMR

Public Health and Epidemiology Department Nigerian Institute of Medical Research P.M.B. 2013, Yaba, Lagos Tel: 08055146173

E-mail: pheabian@yahoo.co.uk; op.akinwale@nimr.gov.ng

October 11, 2019

# Table of Contents

Executive Summary	3
Introduction	4
Background	5
Intervention Description	6
Study Design	7
Study Sample	7
Table 1: Study Location	8
Study period	8
Data Collection	8
Quantitative Methods	8
Qualitative Methods	8
Preparation for data collection	9
Data management and analysis	9
Ethical Considerations	10
Quantitative Results	10
Demographic Characteristics	10
Table 2: Demographic Characteristics	11
Table 3: Educational Characteristics	12
Practices and Behaviours	12
Sexual Behavior	12
Table 4: Sexual Behaviour	12
Contraceptive Use	13
$Table\ 5:\ Use\ of\ Contraception-among\ participants\ who\ have\ ever\ had\ sexual\ intercourse\ .$	13
Alcohol Use	14
Table 6: Alcohol Use Behaviour	15
Perpetration of Gender-Based Violence	17
Table 7: Perpetration of Gender-based Violence: Summary variables	17
Table 8: Perpetration of Gender-Based Violence	18
HIV & STI Testing.	20
Table 9: HIV/STI Testing	20
Knowledge and attitudinal outcomes	20
HIV Knowledge	20
Figure 1: Baseline and Endline HIV Knowledge	21
Table 10: HIV Knowledge	21
Table 11: Independent samples t-test for significance – HIV knowledge	22

Pregnancy & Contraceptive Knowledge	22
Figure 2: Baseline and Endline Pregnancy & Contraceptive Knowledge	22
Table 12: Pregnancy & Contraceptive Knowledge	23
Table 13: Independent samples t-test for significance – Pregnancy & Contraceptive Knowledge	23
Self-efficacy	23
Figure 3: Baseline and Endline Self-efficacy	24
Table 14: Self-efficacy	24
Table 15: Independent samples t-test for significance - Self-efficacy	24
Self-esteem	24
Figure 4: Baseline and Endline Self-Esteem	25
Table 16: Self-esteem	25
Table 17: Independent samples t-test for significance - Self-esteem	26
Gender Equitable Attitudes	26
Figure 5: Baseline and Endline Gender Equitable Attitudes	27
Table 18: Gender Equitable Attitudes	27
Table 19: Independent samples t-test for significance – Gender Equitable Attitudes	27
Qualitative Results	28
The Significance and Effectiveness of SKILLZ Guyz	28
Other Themes	32
Impact on Providers (Coaches)	32
Challenges of the SKILLZ Guyz Programme	33
Notes on Study Implementation & Limitations	35
Summary	36
Recommendations	38
Appendix 1: Survey item frequencies	39

# **Executive Summary**

This report presents the evaluation of the SKILLZ Guyz programme, a sport-based sexual and reproductive health (SRH) and life skills programme for adolescent males to build their SRH Assets – knowledge and the confidence to use it; improve their Access to high impact health services; and promotes Adherence to healthy, positively protective behaviours. Designed by Grassroot Soccer (GRS) and implemented in Lagos, Nigeria by Youth Empowerment Development Initiative (YEDI), SKILLZ Guyz aims to improve gender equitable attitudes, build self- efficacy and self-esteem, and increase knowledge about HIV and SRH and health services among participants. The intervention, delivered to in-school and out-of-school males ages 13-19, was implemented by trained male facilitators ("Coaches") who imparted accurate information, created a safe environment for discussion, and acted as positive role models for participants.

A mixed methods, quasi-experimental design was used to evaluate the effectiveness of SKILLZ Guyz, aiming to:

- Assess the knowledge, attitudes, and beliefs related to sexual and reproductive health, HIV, gender equity, and positive identity formation of SKILLZ Guyz participants
- Assess and compare the effectiveness of SKILLZ Guyz among in-school and out-of-school adolescents
- Identify critical components to implementation fidelity and delivery to strengthen future interventions

Data sources contributing to the evaluation included a quantitative survey administered to participants pre- and post-intervention (n=258), HIV testing data, and qualitative focus group discussions (n=2; 20 total participants) and in-depth interviews (n=8) with YEDI program staff and SKILLZ Guyz Coaches. Routine monitoring data such as attendance records also contributed to the evaluation. An external evaluator from the Nigerian Institute of Medical Research, YEDI monitoring and evaluation staff, and GRS research, curriculum and programmatic staff contributed to the conception, design, and implementation of the evaluation.

In-school (IS) and out-of-school (OS) participants differed on several demographic and behavioural characteristics: OS participants were older than the IS group, and a greater proportion of OS participants had completed secondary school than IS participants. A greater proportion of OS participants reported sexual activity, but overall less than 1/3 of all participants reported ever having sexual intercourse. Among those who reported having sexual intercourse, use of condoms and other contraceptive methods was low, highlighting the need for the SKILLZ Guyz intervention. A greater proportion of OS participants reported drinking alcohol, and a small proportion indicated problematic alcohol consumption.

Perpetration of violence against female partners was high among all participants, with verbal abuse/insults as the most common type of violence. More than half of participants reported ever using acts of physical violence against female partners, such as slapping, pushing, or

shoving.

Statistically significant improvements across all respondents were seen in the following programme outcomes measured by the quantitative survey:

- HIV knowledge
- Pregnancy and contraceptive knowledge
- Self-efficacy
- Self-esteem; and
- Gender equitable attitudes

These differences were significant among the group of participants as a whole, as well as for IS and OS participants within those groups. On all measures except gender equitable attitudes, OS participants started with a lower mean score at baseline and had a greater change in mean scores through the course of the intervention.

Qualitative data also supports the quantitative findings: YEDI staff and Coaches reported the value of the programme in imparting life skills and SRH information not offered elsewhere to participants. The role of soccer in creating a safe and comfortable environment for discussion and learning was also noted as a key aspect of the programme. Coaches reported positive impacts on their own behaviour as a result of their training and facilitation of the programme, and recommended that the programme be expanded to other parts of Nigeria.

Overall, the study assessed the knowledge, attitudes and beliefs of in-school and out-of-school adolescents in Lagos, Nigeria across several factors showing positive results indicating the SKILLZ Guyz program is effective with adolescent boys and young men. Additionally, study results show that the program is effective with both IS and OS adolescents with slightly larger gains in the OS adolescent population. Lastly, several components of programme and curriculum design have been identified to improve programme and quality.

# Introduction

The SKILLZ Guyz intervention uses a sport-based methodology and health communication approach to address the sexual and reproductive health (SRH) needs of adolescent males, including topics such as gender equitable beliefs and self-awareness and efficacy. In 2016, the intervention was developed and pre-tested in Lagos, Nigeria by Youth Empowerment and Development Initiative (YEDI) and Grassroot Soccer (GRS). Pre-testing found that the intervention was appropriate among adolescent males. This study is an important next step in the development of the intervention as it evaluated the effectiveness of SKILLZ Guyz at improving SRH-related health and gender equity attitudes among both in-school and out-of-school adolescent males in Lagos state, Nigeria.

As part of the strategy to engage adolescent boys and promote positive attitudes and behaviours at an early age, YEDI and GRS developed a curriculum to encourage gender equality and healthy social and sexual behaviour, and to equip adolescent boys to be agents of change in their communities. SKILLZ Guyz focuses on providing young men with a safe space to learn from a trusted role model, aiming to promote gender equitable beliefs and reduce risky sexual

behaviour. During this evaluation of SKILLZ Guyz, YEDI worked with 11 trained coaches, 4 Secondary Schools, 1 institution for out-of-school young people, and targeted adolescent boys aged 12 to 19 years. YEDI engaged the boys through a series of discussions and football-oriented activities.

The project design was partly influenced by three key findings of the 2015 Nigeria Men and Gender Equality Survey (NIMAGES) which called for urgency in addressing men's sexual and reproductive health. The survey noted violence arising from inequitable gender norms, and found widespread agreement with restrictive norms about gender roles and acceptance of violence against women. Toughness and sexual performance were central to notions of masculinity and undermine the health of both men and women. In Nigeria, and globally, a gap exists in addressing the unique SRH needs of adolescent males. This includes a lack of evidence for programmes attempting to address these issues. Data from young adolescents is particularly lacking: the Nigerian demographics and health survey (DHS) includes ages 15 and older, while the NIMAGES data includes participants 18 and older.

Adolescence is a critical developmental stage when young people begin to establish behaviour patterns and beliefs that persist into adulthood. Notions of masculinity, attitudes and behaviours related to SRH, self-esteem, and self-efficacy are all shaped during adolescence. As such, the project aimed to encourage the adoption of gender-equitable attitudes and behaviours among adolescent boys, and to improve sexual health and development knowledge, attitudes, self-efficacy, and self-care practices. This study was an attempt to examine the effectiveness of SKILLZ Guyz, and to provide valuable data and insights into the ways adolescent males relate to concepts of identity, masculinity, the role of women and girls in relationships, and their health. The study also aimed to examine how SKILLZ Guyz impacted participants' SRH and HIV knowledge – information critical to ensuring a smooth transition from adolescence into adulthood.

The study aimed to evaluate the intervention project according to the following objectives:

- Assess the knowledge, attitudes, and beliefs related to sexual and reproductive health, HIV, gender equity, and positive identity formation of SKILLZ Guyz participants
- Assess and compare the effectiveness of the Intervention among in-school and out- of-school adolescent males
- Identify the critical components to implementation fidelity and delivery to strengthen future iterations of the intervention

# **Background**

Through extensive experience working with adolescent boys and young men, GRS has documented five principles that guided the design of the SKILLZ Guyz intervention:

- 1. **Soccer is used as a hook/platform** to engage young men through a familiar medium.
- 2. Trained male mentors ('Coaches') show alternative ways of being. As trusted and

relatable messengers, Coaches are effective motivators of adolescent male participants.

- 3. **Positive experiences with health systems in non-clinical settings** are created by bridging connections between providers and adolescent males in order to increase uptake of health services.
- 4. **Design for non-traditional champions** includes the creation of materials and programmes that work for diverse and often unconventional educators, such as soccer coaches.
- 5. **Transform gender norms** through intentional designs that challenge harmful gender norms and allow discussion among single and mixed sex groups.

The SKILLZ Guyz programme targets harmful gender norms that negatively impact the health and well-being of both men and women. Gender norms are the perceived standards of acceptable gender-relational attitudes and behaviours often shared by individuals within a community, society or nation. Such beliefs or conceptions may lead to unequal power, where men have power over women, repressed assertiveness where women are not free to express themselves, subdued self-efficacy and even poor sexual and reproductive health. The assumptions are that (1) an individual's behaviour is influenced by perceptions of what other people accept and expect, and how they behave; (2) the individual's perceptions of what others accept, expect, and do with respect to a potentially harmful behaviour are often inaccurate — These misperceptions are built on the assumption that others are more accepting of negative behaviours than they actually are, and that they engage in more negative behaviours than they actually do; (3) Hence, correcting these misperceptions will strengthen individuals' feelings, self-efficacy and assertiveness, and reinforce attitudes that help resist negative behaviours. Targeting normative ideation change will increase probability that individuals develop new attitudes and adopt new behaviours like appropriate sexual reproductive health behaviour.

# **Intervention Description**

SKILLZ Guyz uses trained male role models, referred to as Coaches, to deliver sexual and reproductive health and violence prevention education and increase access to available health services. The Intervention consists of 10 *core practices* and two optional or supplemental practices. The intervention is designed to take place twice or more times a week for 60-minutes per intervention (total of 14 hours). SKILLZ Guyz incorporates play into learning, and provides an opportunity to openly discuss issues related to masculinity, sex and relationships, and power and violence.

SKILLZ Guyz is aimed at changing gender norms, and improving assertiveness and self-efficacy that ultimately lead to reduction in risky SRH behaviour and poor health outcomes. The carefully-designed and pre-tested sessions of the curriculum for the intervention are summarized below:

Practice 1 – **Join the SKILLZ Guyz Team** – Participants and coaches get to know each other, discuss the meaning of manhood, and commit to the SKILLZ contract;

Practice 2 – **Rights and Responsibilities** – Coaches discuss human rights with a focus on interpersonal rights, or the rights people have in relationships;

Practice 3 – **Boxed In** – Coaches discuss ways that ideas of manhood can limit their lives, and how they can support one another to create new social norms;

Practice 4 – **Soccer Equality** – Participants discuss gender expectations that create unequal power between boys and girls, and how they can create a more equal society;

Practice 5 – Our Changing Body – Participants dispel common puberty myths and receive correct information on puberty, menstruation, and contraception;

Practice 6 – Winning Combination – Participants identify the benefits and drawbacks of condom use and discuss contraception options available in their communities;

Practice 7 – **Staying in Control** – Participants discuss anger and violence, and practice new skills to help manage their anger in healthy ways such as using the 3Ts (Take a breath, Think of the consequences, and Talk it out) to maintain control;

Practice 8 – **Be Responsible** – Participants reflect on their own behaviours in relation to alcohol and learn how to use confident communication to stand up to peer pressure to drink and engage in other risky behaviours;

Practice 9 – Yes Means Yes – Participants discuss consent and sexual violence, and the consequences of rape and sexual violence;

Practice 10 -Speak Up -Participants discuss ways to take action and speak up when people around them are acting in sexist or abusive ways.

(Ref: Grassroot Soccer/Youth Empowerment and Development Initiative SKILLZ Guyz Coach's Guide – 2018 edition.

# **Study Design**

The study used a quasi-experimental, mixed methods approach in order to gain a deeper understanding of the effectiveness of the intervention. The quantitative components, including a questionnaire and HIV testing data, measured the outcomes for the participants of the intervention. The qualitative work, including focus group discussions and in-depth interviews, provided deeper understanding of the processes related to planning, training, implementing, monitoring, and reporting on intervention activities. The quantitative and qualitative data were collated and analysed independently at which stage data were merged for comparison and triangulation.

# **Study Sample**

A purposive sample of respondents was selected based on the practical considerations of intervention delivery, given funding and time constraints. The assumptions behind the sample

size are based on a Needs Assessment study on Hello Lagos Youth Friendly Centres conducted by YEDI in 2015. Participants were selected from four schools and one facility for street children/out-of-school children in Lagos state, as seen in Table 1:

Table 1: Study Location

Locations	Number of participants
District Junior College	40
St Francis Junior Grammar School	40
Birch Freeman Senior High School, Mushin	40
Oshodi Senior Secondary School, AJIF, Apapa	20
Child Lifeline Out-of-School Youth, Gbagada	118
Total	258

# Study period

Baseline data collection took place from 5 February through 2 March, 2018 and endline data collection was completed from 30 April through 25 May, 2018.

#### **Data Collection**

#### **Quantitative Methods**

A paper-based, self-administered questionnaire comprised the main part of the quantitative portion of the evaluation. The questionnaire was administered to the participants before and immediately after intervention. The questionnaire was developed based on the objectives of the study, assessed sexual and reproductive health knowledge and attitudes, violence and gender attitudes and experiences, sexual behaviour, demographics, and household information. Participants had the option to complete a paper-based questionnaire in either English language or their language of local instruction.

Uptake of HIV testing among intervention participants was recorded via HIV testing registers at Hello Lagos Centres and YEDI. HIV testing data was issued to SKILLZ Guyz participants through client request and result forms.

# Qualitative Methods

Eight in-depth interviews (IDIs) were carried out with YEDI staff. These IDIs covered perceptions and acceptability of the intervention, perceptions and beliefs about gender and SRH and changes experienced as result of the intervention.

Two focus group discussions (FGD) were carried out with 20 YEDI Coaches (10 Coaches per FGD session) facilitating the intervention to learn how they viewed the different components of the intervention and their perceptions of any changes observed among intervention

participants. YEDI staff members, trained in qualitative data collection, conducted FGDs and IDIs and transcribed the interviews and translated to English language.

The qualitative component of the evaluation process provided rich nuanced descriptions that may allow us to identify key mechanisms and processes underlying the observed changes in the larger quantitative sample. Principally, the qualitative data were retrieved as open-ended interviews and discussions to engage the facilitators in conversations and descriptions based on a set of themes that exhaustible provide nuance to the whole project.

#### Preparation for data collection

SKILLZ Guyz Coaches were trained in data collection methods prior to implementation of the study. The main topics of the training for data collection and SKILLZ Guyz coaches included the purpose of the project, data collection techniques, interviewing children, understanding the questionnaire and general ethics of working with the curriculum. All field team members signed a child protection policy committing them to protect and safeguard the rights of participants at all times while in the field and under contract with YEDI. In addition, another team was commissioned for on-the-spot observation and evaluation of activities of the coaches. Furthermore, the master coaches, and other YEDI team members – inclusive of the Head of Programmes – supervised some of the sessions and data collection to ensure high quality of data.

# Data management and analysis

A Microsoft Excel database of study participants was used to track enrolment, consent, intervention attendance and basic participant demographics. This database was password-protected and only accessible for certain study staff. This database was kept separate from the questionnaire database; so no personal identifying information was stored alongside questionnaire results. Audio files from FGDs and IDIs were also stored in password-protected folder and only accessible to the YEDI evaluation team and external evaluator.

Quantitative data was entered into Excel, then imported into IBM SPSS version 25, for cleaning and analysis, which was carried out by the external evaluator and GRS staff. During this phase, necessary recoding of variables was conducted, and multi-item scale variables were created. These include scales measuring intervention outcomes corresponding to the different sections of the questionnaire instrument. Where appropriate, inter-item reliability was assessed through calculation of Cronbach's Alpha. Tables and charts were created in Microsoft Excel. Descriptive statistics involving percentages were utilised in presenting the data in the simplest and most logical manner. Comparing the baseline and endline questionnaires of intervention participants provided valuable information about the changes in participants through the course of the programme.

Qualitative interviews and focus group discussions were recorded and transcribed, then translated where necessary. A thematic analysis approach was used to pull out key findings

from the interviews and discussions, providing a more thorough understanding of experiences from YEDI staff and SKILLZ Guyz coaches.

#### **Ethical Considerations**

This study entailed very minimal risk for study participants. Participants were informed that taking part in the evaluation may take them away from studying or other activities, but their contributions would help improve the programme to benefit future SKILLZ Guyz participants. No names or identifiable personal details were included on the questionnaires thus responses to sensitive questions asked on the questionnaire pertaining to sexual behaviour and violence were and are entirely confidential. No distress was observed among the adolescents who participated.

A procedure to obtain written parental consent and written participant assent was devised by the study team and included in the IRB application. Prior to commencement, potential participants were given verbal information about the study and the intervention before being asked to assent to participate. They were informed about potential risks and benefits of their participation, and given the opportunity to opt out of the study. However, implementation of the consent procedure deviated from the IRB-approved protocol, in that written consent and assent was not obtained from participants prior to the intervention.

Upon recognizing this shortcoming, the study team discussed options to rectify the issue, and proceeded to obtain retroactive consent from participants. YEDI coaches were briefed on the issue and went out to follow-up with as many participants as possible. Through the course of a few weeks, they were able to trace all participants in both IS and OS groups, and completed a retroactive consent process. Written consent from parents and guardians, as well as written assent from adolescent participants was obtained. More discussion of the consent process is included in the section "Notes on Study Implementation and Limitations." GRS and YEDI notified the IRB of this deviation in obtaining consent. The IRB approved the retroactive consent process.

# **Quantitative Results**

# Demographic Characteristics

Demographic characteristics of participants are described in Table 2 below. The program achieved a graduation rate of 92%, meaning that 237 of 258 boys attended at least seven out of ten practices. The smaller endline sample is largely due to absenteeism on the day the endline survey was administered.

Demographic characteristics remained largely stable from baseline to endline, but several key differences were observed between the in-school and out-of-school groups: out-of-school (OS) participants were older than in-school (IS) participants, with baseline mean ages of 16.06 and 14.68, respectively. At the time of the baseline survey, nearly three-quarters of OS participants were 15 or older (72.2%), compared to less than half of IS participants (46.4%).

Furthermore, at baseline over half of OS participants lived with neither parent (52.2%), to be expected given that they were sampled from an out-of-school residential facility. Most IS participants lived with both parents (79.3%). The most common household size for OS participants was 8 or more persons (44%), while the majority of IS participants resided in a household with 5-7 persons (58.8%)

Table 2: Demographic Characteristics

Demographic	Basel	line		End-line			
Information	IS	OS	Total	IS	OS	Total	
Sample size	140	118	258	105	100	205	
Age							
Mean	14.68	16.06	15.28	14.47	15.76	15.10	
12 - 14	53.6%	27.4%	42.3%	57.8%	30.2%	44.4%	
15 or older	46.4%	72.2%	57.7%	42.2%	69.8%	55.6%	
Lives with:							
Both Parents	79.3%	31.7%	58.1%	77.5%	31.9%	55.6%	
Father only	1.4%	7.1%	4.0%	1.0%	8.5%	4.6%	
Mother only	12.1%	8.8%	10.7%	12.7%	8.5%	10.7%	
Neither Parent	7.1%	52.2%	27.3%	8.8%	51.1%	29.1%	
Household size							
Mean	8.01	9.73	8.78	6.32	12.32	9.23	
1 – 4 Persons	20.6%	22.9%	21.6%	20.0%	23.4%	21.6%	
5 – 7 Persons	58.8%	33.0%	47.3%	66.0%	29.8%	48.5%	
8 or more	20.6%	44.0%	31.0%	14.0%	46.8%	29.9%	

Regarding education, the older age of OS participants was apparent again: almost half had completed secondary school (45.5%) compared to less than one third of IS participants at baseline (29.3%). Over half of OS participants reported regularly attending school (53.3%), while nearly all of IS participants stated the same (95%). Most participants indicated an intention or desire to continue schooling, with more than three quarters of participants reporting that they expected to complete four more years of education (75.5%).

Table 3: Educational Characteristics

	Baseline			End-line					
	IS	OS	Total	IS	OS	Total			
Highest level of school completed									
None	7.9%	11.6%	9.5%	2.9%	11.2%	6.9%			
Primary	57.9%	38.4%	49.2%	62.5%	49.0%	55.9%			
Secondary	29.3%	45.5%	36.5%	25.0%	37.8%	31.2%			
Tertiary	5.0%	4.5%	4.8%	9.6%	2.0%	5.9%			
Regularly at	tending scho	ol	•	•	•				
Yes	95.0%	53.3%	76.9%	95%	53.4%	75.7%			
No	5.0%	46.7%	23.1%	5.0%	46.6%	24.3%			
Expected year	rs of schoolir	g remaining		•	•				
1	1.4%	3.7%	2.4%	2.0%	5.3%	3.6%			
2	1.4%	10.1%	5.2%	4.0%	9.5%	6.7%			
3	10.0%	25.7%	16.9%	12.0%	23.2%	17.4%			
4	87.1%	60.6%	75.5%	82.0%	62.1%	72.3%			

#### **Practices and Behaviours**

# Sexual Behaviour

IS and OS participants showed differences in their age of sexual debut and experience (seen in Table 4), with slightly less than half of OS participants reporting having had sexual intercourse at baseline (43.1%), compared to less than 1/4th of IS participants (23.6%). This means that overall, about 2/3 of all participants had not had sexual intercourse at the time of the baseline survey (67.4%).

Of those participants who had had sexual intercourse, OS participants had an older mean age at first sex compared to IS participants (14.61 years vs. 13.65, respectively). Additionally, participants who reported having had sex reported about 2 partners at baseline (overall mean 2.29). This mean number of partners increased to 2.70 at the time of the endline survey.

Table 4: Sexual Behaviour

Samuel Activities	Base	Baseline		En	<b>End-line</b>			
Sexual Activities	IS	OS	Total	IS	OS	Total		
Ever had sexual intercourse								
Yes	23.6%	43.1%	32.6%	30.9%	46.2%	38.4%		
No	76.4%	57.9%	67.4%	69.1%	53.8%	61.6%		
Total	100%	100%	100%	100%	100%	100%		
N	127	108	236	97	93	190		

Corred Activities	Baseline			End-line		
Sexual Activities	IS	OS	Total	IS	OS	Total
Age at first sexual experience						
Mean	13.65	14.61	14.22	13.63	15.35	14.60
13 or younger	42.3%	34.2%	37.5%	48.1%	18.6%	30.0%
14 or older	57.7%	65.8%	62.5%	51.9%	81.4%	70.0%
Total	100%	100%	100%	100%	100%	100%
N	26	38	64	27	43	70
Number of lifetime sexual p	partners		_			
Mean	2.26	2.31	2.29	2.73	2.68	2.70
1	52.2%	43.6%	46.8%	34.6%	34.1%	34.3%
2 – 3	21.7%	41.0%	33.9%	42.3%	46.3%	44.8%
4 or more	26.1%	15.4%	19.4%	23.1%	19.5%	20.9%
Total	100%	100%	100%	100%	100%	100%
N	23	36	62	26	41	67

# Contraceptive Use

Table 5 shows patterns of contraceptive use by participants. Of participants who had had sex, less than half reported consistent condom use (39.2% overall at baseline), with a greater proportion of OS participants reporting consistent use than IS participants (46.7% vs. 27.6%, respectively). Condom use at first sex as reported at baseline was significantly higher among OS participants than the IS group, with 40.0% of OS participants reporting that they used a condom the first time they had sex, compared to only 11.5% of IS adolescents (Chi Square test 6.409, p=.011).

Condom use at last sex appeared comparable among OS and IS participants, and increased from 34.7% to 42.0% overall from baseline to endline. Use of other contraceptive methods was low, 20% at baseline compared to 13.9% at endline. This apparent decrease may indicate a poorly worded survey item, or a better understanding among participants of what constitutes other contraceptive methods.

Table 5: Use of Contraception

II.a. of	Baseline		End		d-line				
Use of Contraception	IS	OS	Total	IS	OS	Total			
Do you or your part	Do you or your partner consistently use condoms when you have sexual intercourse?								
Yes	27.6%	46.7%	39.2%	42.9%	48.8%	46.5%			
No	72.4%	53.3%	60.8%	57.1%	51.2%	53.5%			
N	29	45	74	28	43	71			

TI C	Bas	eline		En	ıd-line				
Use of Contraception	IS	OS	Total	IS	OS	Total			
The first time you h	The first time you had sexual intercourse, did you or your partner use a condom?								
Yes	11.5%	40.0%	29.6%	34.5%	51.2%	44.3%			
No	88.5%	60.0%	70.4%	65.5%	48.8%	55.7%			
N	26	45	71	29	41	70			
The last time you	ı had sexual	intercours	e, did you o	or your part	ner use a cond	lom?			
Yes	35.7%	34.0%	34.7%	40.0%	43.6%	42.0%			
No	64.3%	66.0%	65.3%	60.0%	56.4%	58.0%			
N	28	47	75	30	39	69			
•	The last time you had sexual intercourse, did you or your partner use any other method of contraception other than condoms?								
Yes	17.9%	21.4%	20.0%	10.0%	16.7%	13.9%			
No	82.1%	78.6%	80.0%	90.0%	83.3%	86.1%			
N	28	42	70	30	42	72			

# Alcohol Use

Table 6 depicts alcohol use behaviour of participants. Overall alcohol use among participants was noticeably lower among IS participants, with more than 80% reporting at baseline that they never drink alcohol, compared to about half of OS participants reporting that they never drink (50.5%). These proportions remained relatively stable at endline, with a slight increase in participants reporting that they never drink alcohol (83.3% of IS participants and 56.3% of OS participants).

A greater proportion of OS participants report drinking alcohol daily (11.9% at baseline) compared to IS adolescents (3.6%), with a slight increase in these proportions at endline (14.6% of OS participants and 5.9% of IS participants). Most participants reported never consuming six or more alcoholic drinks on one occasion, but around one-fifth of OS participants reported monthly binge consumption (18.0% at baseline, 19.0% at endline).

Throughout all alcohol categories, a greater proportion of OS adolescents report problematic use of alcohol, though the overall percentage is quite low. This greater use of alcohol may be influenced by the older age of OS participants, since more of them were in late adolescence during the study compared to IS participants.

Table 6: Alcohol Use Behaviour

		Baseline		End-line			
		IS	OS	Total	IS	OS	Total
	Never	80.4%	50.5%	67.2%	83.3%	56.3%	70.2%
How often do you have a	Once a week	12.3%	22.0%	16.6%	7.8%	11.5%	9.6%
drink containing	2-3 days a week	3.6%	12.8%	7.7%	1.0%	12.5%	6.6%
alcohol in a week?	4-6 days a week	0.0%	2.7%	1.2%	2.0%	5.2%	3.5%
	Everyday	3.6%	11.9%	7.3%	5.9%	14.6%	10.1%
N		138	109	247	102	96	198
How many bottles of	Never drink	82.7%	50.9%	68.7%	85.6%	58.3%	72.5%
drinks containing	1-2 bottles	11.5%	22.7%	16.5%	9.6%	28.1%	18.5%
alcohol do you have on a	3-4 bottles	1.4%	11.8%	6.0%	2.9%	5.2%	4.0%
typical day when you are	5-6 bottles	0.7%	8.2%	4.0%	1.0%	7.3%	4.0%
drinking?	7-9 bottles	2.2%	4.5%	3.2%	1.0%	1.0%	1.0%
	10 or more bottles	1.4%	1.8%	1.6%	0.0%	0.0%	0.0%
N		139	110	249	104	96	200
How often do	Never	88.3%	66.7%	78.6%	85.6%	72.0%	78.9%
you have six or	Monthly	7.3%	18.0%	12.1%	7.7%	19.0%	13.2%
more drinks	Weekly	4.4%	13.5%	8.5%	4.8%	7.0%	5.9%
containing alcohol on one occasion?	Daily	0.0%	1.8%	0.8%	1.9%	2.0%	2.0%
N		137	111	248	104	100	204
How often	Never	92.8%	73.2%	84.0%	88.5%	76.3%	82.6%
during the last	Monthly	1.4%	12.5%	6.4%	3.8%	8.2%	6.0%
year have you found you were not able to stop drinking once you had started?	Weekly	2.9%	11.6%	6.8%	5.8%	5.2%	5.5%
	Daily	2.9%	2.7%	2.8%	1.9%	10.3%	6.0%
N		138	112	240	104	97	201

		Base	line		End-	line	
		IS	OS	Total	IS	OS	Total
How often during the last	Never	91.4%	71.4%	82.5%	95.2%	79.6%	87.6%
year have you failed to do	Monthly	2.9%	13.4%	7.6%	1.9%	3.1%	2.5%
what was	Weekly	2.9%	9.8%	6.0%	1.9%	8.2%	5.0%
expected of you because of drinking?	Daily	2.9%	5.4%	4.0%	1.0%	9.2%	5.0%
N	_	139	112	251	104	98	202
How often during the last	Never	96.4%	75.5%	87.1%	95.2%	88.7%	92.0%
year have you	Monthly	2.2%	10.5%	6.0%	1.9%	7.2%	4.5%
needed a first drink in the	Weekly	1.4%	10.0%	5.2%	2.9%	2.1%	2.5%
morning to get yourself going after heavy drinking session?	Daily	0.0%	3.6%	1.6%	0.0%	2.1%	1.0%
N		139	110	249	104	97	201
How often	Never	94.2%	79.1%	87.5%	92.3%	72.9%	83.0%
during the last	Monthly	2.9%	10.1%	6.0%	2.9%	10.4%	6.5%
year have you	Weekly	2.2%	7.3%	4.4%	1.9%	5.2%	3.5%
had a feeling of guilt or remorse after drinking?	Daily	0.7%	3.6%	2.0%	2.9%	11.5%	7.0%
N		138	110	248	104	96	200
How often during the last	Never	95.0%	75.7%	86.6%	90.4%	83.5%	87.1%
year have you	Monthly	1.4%	11.2%	5.7%	4.8%	11.3%	8.0%
been unable to remember what happened the night before because of your drinking?	Weekly	3.6%	11.2%	6.9%	3.8%	5.2%	4.5%
	Daily	0.0%	1.9%	0.8%	1.0%	0.0%	0.5%
N		139	107	246	104	97	201

		Base	line		End-	line	
		IS	OS	Total	IS	OS	Total
Have you or	Never	97.1%	72.8%	86.7%	89.4%	77.6%	83.7%
someone else been injured because of your drinking?	Yes, but not last year	2.2%	21.4%	10.4%	7.7%	12.2%	9.9%
	Yes, within the last year	0.7%	5.8%	2.9%	2.9%	10.2%	6.4%
N		137	103	240	104	98	202
Have a relative,	Never	93.5%	67.3%	82.4%	94.0%	79.8%	87.1%
friend, doctor or other health care worker been	Yes, but not last year	3.6%	23.8%	12.1%	4.0%	16.0%	9.8%
concerned about your drinking or suggested you cut down of drinking?	Yes, within the last year	2.9%	8.9%	5.4%	2.0%	4.3%	3.1%
N		138	101	239	100	94	194

# Perpetration of Gender-Based Violence

Perpetration of gender-based violence (GBV) was high among SKILLZ Guyz participants. As seen in Table 7, most participants reported ever committing some type of gender-based violence against female partners: at baseline, three-quarters of participants reported ever committing psychological violence (75.2%), while 68.2% of participants reported ever having committed physical violence against a female partner or friend.

Table 7: Perpetration of Gender-based Violence: Summary variables

		Baseline		Endline			
	IS	OS	Total	IS	OS	Total	
Ever perpetrated	68.2%	83.8%	75.2%	62.1%	57.0%	50.70/	
psychological	08.2%	83.8%	13.2%	02.1%	37.0%	59.7%	
violence against a							
female partner							
Ever perpetrated	(2.70/	75.00/	CO 20/	41 10/	46.20/	12 10/	
physical violence	62.7%	75.0%	68.2%	41.1%	46.3%	43.4%	
against a female							
partner							

These summary variables indicate the proportion of participants who reported committing at least one act of psychological and physical violence, respectively, while the breakdown by specific act of violence is seen in Table 8.

One limitation of the items related to perpetration of violence is the phrasing of the items for the endline survey: the items ask participants if they have "ever" committed these behaviors, where changes should have been made to "Since participating in SKILLZ Guyz." Thus, the interpretation of endline data on violence is limited, since the results show a decrease in violent behavior.

The most common type of violence shown by participants was insulting or making a partner feel bad about herself, where at baseline nearly half of participants reported committing this behavior (46.2% overall; 51.9% OS, 41.7% IS). Insulting a partner was the most common type of violence overall, as well as the most common type of psychological violence reported by participants. The most common act of physical violence was hurting people a partner cares about or damaging things of importance to her (31.6% overall at baseline). In all of the violence items, a higher percentage of OS participants reported perpetration than IS participants.

Table 8: Perpetration of Gender-Based Violence

		Baseline		Enc	d-line	
	IS	OS	Total	IS	OS	Total
Have you ever ins	ulted a partn	er or delibera	ately made h	er feel bad	about herself	?
Yes	41.7%	51.9%	46.2%	36.9%	39.8%	38.3%
No	52.5%	41.7%	47.8%	56.3%	50.5%	53.6%
Don't know	5.8%	6.5%	6.1%	6.8%	9.7%	8.2%
N	139	108	247	103	93	196
Have you ever b	elittled or hu	ımiliated a p	artner in fro	nt of other p	eople?	
Yes	32.4%	38.9%	35.2%	20.4%	31.6%	25.8%
No	62.5%	48.1%	56.1%	69.9%	61.1%	65.7%
Don't know	5.1%	13.0%	8.6%	9.7%	7.4%	8.6%
N	136	108	244	103	95	198
Have you ever d	lone things to	o scare or int	imidate a pa	rtner on pur	pose?	
Yes	32.6%	44.8%	38.0%	33.7%	31.2%	32.5%
No	59.8%	48.6%	54.9%	60.4%	62.4%	61.3%
Don't know	7.6%	6.7%	7.2%	5.9%	6.5%	6.2%
N	132	105	237	101	93	194

		Baseline		Enc	d-line	
	IS	OS	Total	IS	OS	Total
Have you ever th	reatened or	hurt a partne	er?			
Yes	30.8%	45.2%	37.1%	22.5%	25.0%	23.7%
No	65.4%	47.1%	57.4%	70.6%	65.2%	68.0%
Don't know	3.8%	7.7%	5.5%	6.9%	9.8%	8.2%
N	133	104	237	102	92	194
Have you ever he things of importa		our partner c	ares about a	s a way of h	urting her, o	r damaged
Yes	27.5%	36.8%	31.6%	11.8%	20.6%	16.1%
No	67.9%	57.5%	63.3%	82.4%	70.1%	76.4%
Don't know	4.6%	5.7%	5.1%	5.9%	9.3%	7.5%
N	131	106	237	102	97	199
Have you ever sl	apped a par	tner or throw	n something	g at her that	could hurt h	er?
Yes	26.0%	31.8%	28.6%	21.6%	17.3%	19.5%
No	71.7%	61.7%	67.1%	73.5%	75.5%	74.5%
Don't know	2.4%	6.5%	4.3%	4.9%	7.1%	6.0%
N	127	107	234	102	98	200
Have you ever p				-		
Yes	25.4%	32.4%	28.5%	18.6%	20.0%	19.3%
No	69.8%	60.8%	65.8%	76.5%	68.4%	72.6%
Don't know	4.8%	6.9%	5.7%	4.9%	11.6%	8.1%
N	126	102	228	102	95	197
Have you ever ki						
Yes	16.3%	32.0%	23.3%	10.9%	16.8%	13.8%
No	80.6%	62.1%	72.4%	81.2%	72.6%	77.0%
Don't know	3.1%	5.8%	4.3%	7.9%	10.5%	9.2%
N	129	103	232	101	95	196

		Baseline		Enc					
	IS	OS	Total	IS	OS	Total			
Have you ever threatened to use or actually used a weapon (stick, knife, gun, or other weapon) against a partner?									
Yes	13.6%	29.2%	20.4%	11.0%	16.8%	13.7%			
No	83.2%	62.5%	74.2%	84.0%	68.9%	76.8%			
Don't know	3.2%	8.3%	5.4%	5.0%	14.4%	9.5%			
N	125	96	221	100	90	190			

# **HIV & STI Testing**

HIV and STI testing was made available to OS participants, but due to a lack of approvals for HIV testing in schools, IS participants did not take part. STI testing including several common infections, such as chlamydia, gonorrhea, and syphilis. Testing was only offered on one day, and not all OS adolescents were present to be offered testing. The study team had aimed for a higher number of participants to be tested.

Table 7 shows that out of 30 participants that were tested for HIV and other STIs, 53.3% were between the ages of 10 and 14 years, while the remaining 46.7% were age of 15 and older. Furthermore, 83.3% of the tested participants were first time testers. All participants were HIV negative. However, one (3.3%) of the tested participants had an STI infection and was subsequently referred to the LASUTH.

Table 9: HIV/STI Testing

HIV/STI Testing	10 – 14	15 – 19	Total				
Number tested	16 (53.3%)	14 (46.7%)	30 (100.0%)				
First Time Tester	15 (50.0%)	10 (33.3%)	25 (83.3%)				
HIV Status (Negative)	16 (53.3%)	14 (46.7%)	30 (100.0%)				
HIV Status (Positive)	0 (0.0%)	0 (0.0%)	0 (0.0%)				
STI	0 (0.0%)	1 (3.3%)	1 (3.3%)				
Referral	Participant with STI was referred to Lagos State University Teaching Hospital (LASUTH)						

# Knowledge and attitudinal outcomes

## HIV Knowledge

HIV knowledge was assessed on a 10-item scale with theoretical range 1 to 10, in which higher scores reflect greater knowledge. The scale included items on HIV prevention, modes of

transmission, and required participants to correctly dispel common myths about HIV. These items were selected to measure participants' comprehensive HIV knowledge, with frequencies for each variable found in Appendix 1.

The overall mean score increased significantly from 5.8398 at baseline to 6.8634 at endline, representing an improvement in participants' HIV knowledge. Significance was assessed using an independent samples t-test (p<.001). The difference in the mean score among IS participants from baseline to endline was .83929, a significant difference on p<.001. The change from baseline to endline among OS participants was also significant (mean difference 1.30657, p<.001). These significant differences indicate that the program improved the HIV knowledge of both IS and OS participants, with a greater mean difference among OS participants.

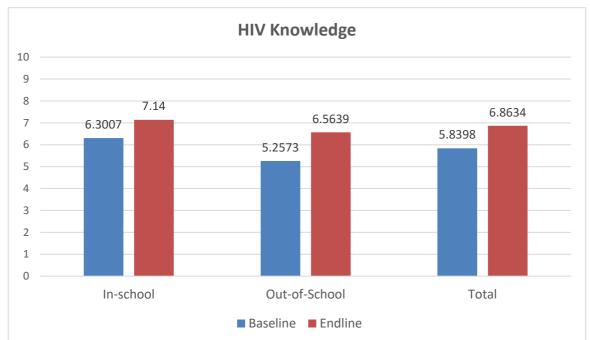


Figure 1: Baseline and Endline HIV Knowledge

Table 10: HIV Knowledge Scores (from 10-item scale with theoretical range 1 to 10)

		Baseli	ine	Endline			
	IS	OS	Total	IS	OS	Total	
HIV knowledge	6.3007	5.2573	5.8398	7.1400	6.5639	6.8634	

Table 11: Independent samples t-test for significance – HIV knowledge Independent Samples Test

	Levene's								
	Variar	-			t-tos	t for Equality	of Means		
	variai	1003			1-103	Lquality			
							Std.	95% Con	fidence
					Sig.		Error	Interval	of the
					(2-	Mean	Differenc	Differe	ence
	F	Sig.	t	df	tailed)	Difference	е	Lower	Upper
Equal variances	2.486	.116	-6.119	449	.000	-1.02358	.16729	-1.35234	69482
assumed									
Equal variances not			-6.043	405.661	.000	-1.02358	.16938	-1.35655	69061
assumed									

# Pregnancy & Contraceptive Knowledge

A three-item scale was used to examine knowledge of pregnancy and contraception, including items on pregnancy and condom use. The scale had a theoretical range from 0 to 3, where higher scores indicate greater knowledge. The overall mean score increased significantly from 2.1148 at baseline to 2.5 at endline, meaning that participant SRH knowledge improved over the course of the intervention (t-test p<.001).

The mean difference from baseline to endline among IS participants was .19853, significant on p=.039, while the mean difference among OS participants was .62037, significant on p<.001. There was a greater change in pregnancy and contraceptive knowledge among OS participants, who started from a lower baseline mean score than IS participants.

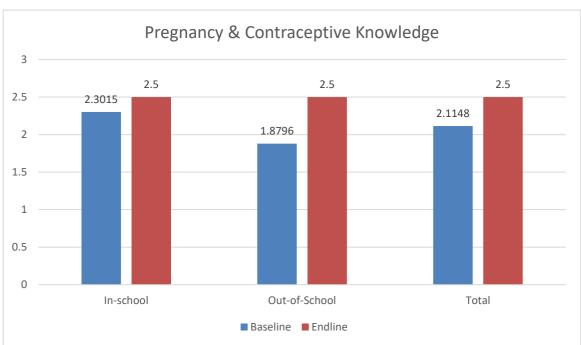


Figure 2: Baseline and Endline Pregnancy & Contraceptive Knowledge

Table 12: Pregnancy & Contraceptive Knowledge Scores (theoretical range from 0 to 3)

		Endline				
	IS	OS	Total	IS	os	Total
SRH knowledge	2.3015	1.8796	2.1148	2.5000	2.5000	2.5000

Table 13: Independent samples t-test for significance – Pregnancy & Contraceptive Knowledge

	Independent Samples Test										
	Levene's	Test for									
	Equa	lity of									
	Varia	nces		t-test for Equality of Means							
								95% Con	fidence		
								Interval c	f the		
					Sig. (2-	Mean	Std. Error	Differenc	е		
	F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper		
Equal	.290	.591	-4.697	442	.000	38525	.08202	54644	22405		
variances											
assumed											
Equal			-4.730	434.628	.000	38525	.08145	54534	22515		
variances not											
assumed											

# Self-efficacy

The construct of self-efficacy was measured using a 6-item scale, with theoretical range zero to six, and higher values showing higher levels of self-efficacy. Items asked participants to agree or disagree with statements regarding their beliefs in their own capacity, for example "I know how to stand up to peer pressure (i.e. to drink alcohol, or have sex from my friends."

Reliability analysis was performed on this attitudinal scale, with a Cronbach's Alpha coefficient of .631 indicating fair inter-item reliability. The overall mean value increased significantly from 4.2268 to 5.1833, indicating improvement in participant self-efficacy over the course of the intervention (t-test p <.001). Changes in the mean scores among IS participants and OS participants from baseline to endline were also significant on p<.001, with a greater mean difference among OS adolescents (1.20937 mean difference for OS compared to .75385 among IS participants). Similarly with other measures, OS participants started a lower baseline mean value than the IS group.

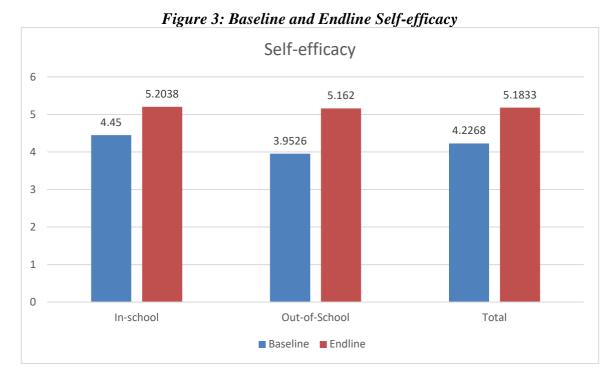


Table 14: Self-efficacy

Scale Name	V UV I	Baseline		Endline			
	IS	OS	Total	IS	OS	Total	
Self- efficacy	4.4500	3.9526	4.2268	5.2038	5.1620	5.1833	

Table 15: Independent samples t-test for significance - Self-efficacy Independent Samples Test

			macp	ciiaciii (	Jampie	3 1631				
	Leve	ne's								
	Test	for								
Equality of										
			t-te:	st for Equality	of Means					
								95% Cor	fidence	
					Sig.			Interval	of the	
					(2-	Mean	Std. Error	Differ	ence	
	F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper	
Equal variances	1.275	.259	-8.047	456	.000	95656	.11887	-1.19016	72296	
assumed										
Equal variances not			-8.053	436.070	.000	95656	.11879	-1.19003	72309	
assumed										

# Self-esteem

Self-esteem was measured on a 3-item scale with theoretical range 3 to 15, with higher sores representing higher levels of self-esteem. Participants rated their agreement with statements on

a 5-point Likert scale, including "I usually feel good about the choices that I make," "I feel confident that I will be able to accomplish my goals in life," and "I believe that I am worthy and deserving of good things in life."

Reliability analysis was performed to assess inter-item reliability on this scale, with a Cronbach's Alpha coefficient of .783 indicating good inter-item reliability. From baseline to endline, the overall mean value increased significantly from 11.6472 to 12.7941 (t-test p<.001), showing improvement in participant self-esteem over the course of the intervention.

Changes from baseline to endline in both IS and OS groups were significant (p=.037 IS, p<.001 OS), though the mean difference was greater among OS participants (mean difference .5667 IS, compared to 1.97348 OS). As with other survey measures, OS adolescents started with a lower mean baseline value than IS adolescents.

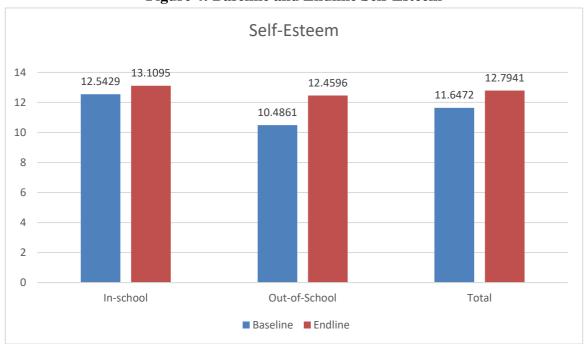


Figure 4: Baseline and Endline Self-Esteem

Table 16: Self-esteem

Tubic 10. Self esteem								
<b>Scale Name</b>		Baseline		Endline				
	IS	OS	Total	IS	OS	Total		
Self-esteem	12.5429	10.4861	11.6472	13.1095	12.4596	12.7941		

Table 17: Independent samples t-test for significance - Self-esteem Independent Samples Test

	Levene's Equal	ity of	_							
	Variances			t-test for Equality of Means						
							Std.	95% Coi	nfidence	
					Sig.	Mean	Error	Interva	l of the	
					(2-	Differenc	Differenc	Differ	ence	
	F	Sig.	t	df	tailed)	е	е	Lower	Upper	
Equal variances	18.532	.000	-4.863	450	.000	-1.14694	.23587	-1.61049	68340	
assumed										
Equal variances			-5.052	431.160	.000	-1.14694	.22703	-1.59316	70072	

# Gender Equitable Attitudes

Gender equitable attitudes of participants were assessed using a 20-item scale with theoretical range 20 to 100, with higher scores demonstrating more equitable beliefs related to gender. Participants were asked to rate their agreement with each item on a five-point Likert scale. Items dealt with several concepts, including normative roles and responsibilities of men and women, attitudes toward violence against women, and notions of what it means to be a man in Nigeria.

Reliability analysis was performed on this attitudinal scale, with a Cronbach's Alpha coefficient of .852 indicating good inter-item reliability. The overall mean value increased significantly from 53.7895 to 62.7631, indicating improvement in the gender equitable attitudes of participants over the course of the intervention (t-test p < .001).

The difference in mean score from baseline to endline among IS adolescents was significant (mean difference 7.68576, p<.001), as was the difference among OS participants (mean difference 10.25641, p<.001). However, on this measure alone, the baseline mean score among IS participants was lower than that of OS participants, indicating less gender equitable attitudes among IS participants at baseline.

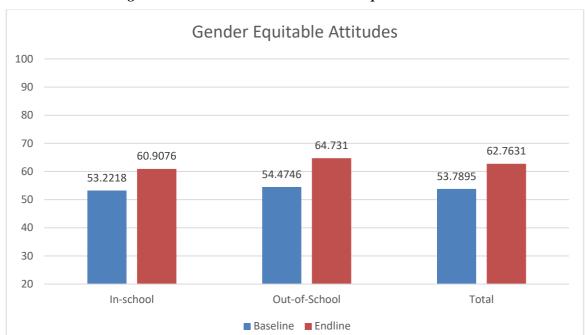


Figure 5: Baseline and Endline Gender Equitable Attitudes

Table 18: Gender Equitable Attitudes Scores (20-item scale with theoretical range 20 to 100)

Scale Name		Baseline		Endline			
	IS	OS	Total	IS	OS	Total	
Gender	53.2218	54.4746	53.7895	60.9076	64.7310	62.7631	
Equitable							
Attitudes							

Table 19: Independent samples t-test for significance – Gender Equitable Attitudes Independent Samples Test

	Levene's Test for Equality of										
Variances			t-test for Equality of Means								
								95% Cor	fidence		
					Sig.			Interval	of the		
					(2-	Mean	Std. Error	Differe	ence		
	F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper		
Equal	13.189	.000	-7.632	458	.000	-8.97359	1.17579	-11.28420	-6.66297		
variances											
assumed											
Equal			-7.487	396.676	.000	-8.97359	1.19857	-11.32994	-6.61723		
variances not											
assumed											

# **Qualitative Results**

# The Significance and Effectiveness of SKILLZ Guyz

The In-depth Interviews with members of the YEDI team, specifically the Head of Programmes, the Coach Development Coordinator and two Master Coaches, helped to describe the experiences of the programming staff in planning and implementing the SKILLZ Guyz intervention.

Drawing from their experiences with the beneficiaries, the YEDI team and coaches acknowledged that perhaps the most significant impact of the programme is provision of advice on life skills and self-esteem that is not often communicated effectively in their home and school environment. The statements below typify the opinion of majority of the coaches who participated in the FGD:

Most of our participants do not get the opportunity to be advised on life skills at home or in schools so it is great that we coach them on life skills such as how to build self-esteem and how to communicate effectively in order to guide their path. (Coach of SKILLZ Guys)

It is very beneficial because of the success stories we have received from various location. It is not just beneficial but also required because each practice hits a particular point that affects boys and all the practices make positive effects on the participant that are incomparable. (Master Coach)

These views are consistent with the general aim of the programme, as the Head of Programmes expressively described this core ideology during the In-depth Interview (IDI) with the YEDI team:

It is a programme that helps boys especially those from disadvantaged community with information that they ordinarily do not access to. It equips them with knowledge on their body system and gender equality. It also helps boys to know their HIV status and identify positive cases that will have to be referred for extra services. The SKILLZ Guyz coaches who are also same sex as SKILLZ Guyz participant serve as peer educators and mentors to the participants. (Head of Programmes)

... we reach out to both in-school and out-of-school boys with information that they usually do not have access to not even from their parents. These boys are usually misguided through peer pressure and this programme offers them a way out of those risky acts or behaviours. (Head of Programmes)

Importantly, the YEDI team and the coaches noted that the design of the programme, which

incorporates football with educative and informative sessions, was critical to creation of a 'safe space' - an environment in which the beneficiaries freely aired their thoughts, including troubling or personal experiences they might otherwise not have shared. The sharing of these experiences was described as useful in driving discussion during intervention sessions. At the end of such discussions, the participants often reflected on and acknowledged their mistakes, and were quick to raise their desire to change. The statement below typifies this thought:

(It) addresses more on violence and abuse because boys indulge more in such risky practices. It was designed for only boys and so addresses SRHR for boys such as the male genital organ demonstration. Time spent on football is more compared to other curricula. Designed for boys alone which offer safer space for them to open up and disclose matters unlike in mixed gender curricula whereby boys hardly open up due to their female counterpart, female coach or both. SKILLZ Guyz participants gain more knowledge compared to boys who participate in mixed gender curricula. (Master Coach)

The organisers were also of the opinion that the design of the activities in the SKILLZ Guyz curriculum is different from other curricula organised by the agency and elsewhere. The SKILLZ Guyz curriculum is specifically designed to create a safe environment in which adolescents can plan and co-create their own learning and imbibe apposite behaviour and value systems that reshapes their understanding of gender, excellence and sexuality. Importantly, the organisers acknowledged that because the curriculum is designed in a manner that encourages conversation, the interactions tend to be context specific and always seem to address the salient issues faced by adolescents within their community. This view was captured by the following statement:

It varies and is dependent on the societal factors faced by boys in a particular location where an intervention is carried out. We give them all the information but they ask most questions on information addressing challenging factors specific in their location. For example, in Mushin were violence is very common, the information involving the '3-Ts' was the most important for Mushin participants. Also, in Egbeda were picking pockets (stealing by stealthily taking someone else's property from his or her pocket) was common, the information on seeking someone else's consent before doing anything that could affect the person was the most important information after all the information was given to the participants (A Master Coach)

Nonetheless, the organiser concludes that although all the activities in the curriculum are important, it is hard to say which is most valuable to the beneficiaries, without taking into consideration the existential reality of the participants. According to the YEDI team and the

Coaches from the Focus Group Discussions (FGDs), the important take-away from the programme was that SKILLZ Guyz was able to address misconceptions and encourage participants to reflect on their own behavior. Many beneficiaries were not aware of the wrongs in their actions or not motivated enough to preferentially choose appropriate behaviour. Hence the activities and discussion generated from the SKILLZ Guys activities helped to enlighten and motivate them to make more informed choices. The YEDI team and coaches also noted that the deconstruction of harmful orientation was essential to the goal of the programme. According to feedback they received from participants, the YEDI team and Coaches described programme outcomes as significant and noticeable. The statements below typify some of the noticeable impact of the programme on beneficiaries as perceived by the Team and coaches:

During the SKILLZ Holiday Camp carried out last year, 2017, after facilitating practice seven which is "Staying in Control," a participant who was used to bullying even his fellow participants at the camp approached me telling me that this practice has really touched him and he is willing for an honest change. It has built their self-esteem because some boys disclosed that they were unable to speak up to their teachers or classmates in classroom even if they had questions for their class teachers. (Coach of SKILLZ Guyz)

It has helped them a lot especially in substance abuse. For example, in an out-of- school intervention I carried out some months ago, after taking the boys through practice eight, "Be Responsible," most of them disclosed that they usually smoke hard substances not knowing that the substances were harmful to their health and that they were introduced to those substances through their friends. (Coach of SKILLZ Guyz)

There was a case of a participant in Cement Iyana-Ipaja, who disclosed that he was into substance abuse but now wish to change after he had gone through the programme. We referred him to Christ Against Drug Abuse Ministry (CADAM) for more care. (Head of Programmes)

A SKILLZ Guyz coach once shared with me that he once had an intervention with boys who gambled a lot and end up getting into a physical fight. After their sessions on violence, drug abuse, smoking, and alcohol his participants stopped getting involved in a fight though they still gambled. They were able to quit fighting using the 3 'Ts' they were taught which are 'Take a breath', 'Think of the consequences' and 'Talk it out'. Another was about a participant who before he joined the programme smoked marijuana a lot. After the programme he disclosed to his coach that he now wants to quit smoking because he now realises the risks smoking

marijuana has on his health. (Coach Development Coordinator)

The feedback about such life-altering experiences from participation in the SKILLZ Guys programme was not exclusive to the beneficiaries. The coaches and the YEDI team also noted that they got reactions from beneficiaries' loved ones who were delighted about positive changes they noted in the life of beneficiaries. One such case was when a father reached out to show appreciation for the significant changes he noticed in the behaviour of his son. According to the coach, the father acknowledged that his son used to be feisty, but he had noticed that the boy is relatively calm and much in control of his anger:

A parent called me some months ago and asked if I was his son's coach; I said yes and he said that this is not their son that they knew because they have noticed a significant positive change in his behaviour. The parent further explained that their son now controls his anger to a very great extent. (Coach of SKILLZ Guyz)

According the Coaches and YEDI team, feedback from other caregivers also reinforced the effectiveness of the SKILLZ Guys programme towards positively changing behaviour of the beneficiaries and have helped reshape their narrative about the beneficiaries, even in situations they otherwise felt were hopeless. The statement below speaks to such situation:

A care keeper of a particular youth development centre where we formerly facilitated SKILLZ Guyz intervention approached me to discourse his observations on the boys he knew from that community who participated in the intervention. He said that before we came to carry out the intervention, he despised most of those boys because they do climb the fence of the centre to smoke substances such as weed and the boys used to be violent to other community members. When he later saw that we invited them to participate in the programme, he doubted the boys would ever change no matter what. To his greatest surprise on a particular day after the programme, he met some of the boys crying at the back of the centre while he took a tour around the centre. Out of curiosity he asked what the matter was and some told him that the programme had touched them deeply after revealing to them how dangerous the risky activities they had indulged in the past were. They also said that they will miss the programme and their coaches and would love that the programme continues. The care keeper also disclosed that he no longer sees the boys climb up the fence to smoke harmful substances. (Coach of SKILLZ Guyz)

In conclusion, the statement below sums up the significance and effectiveness of the

programme as perceived by the service providers; that is, the YEDI team and coaches, who through their interactions and discussions with both beneficiaries and inadvertently with those around them have managed to observe first-hand the impact of the programme on the lives of the adolescents they reached. According to a coach in the SKILLZ Guyz programme:

(We) deeply connect with social lives of participants. There are lots of social vices such as drug abuse, rape and women abuse. So as SKILLZ Guyz coaches we served as agents of change to discourage this menace by also letting them (beneficiaries) know the dangers involved in these misconducts; helped boys manage anger through this curriculum which has proven effective. (Coach of SKILLZ Guyz)

## Other Themes

# Impact on Providers (Coaches)

The coaches also discussed some personal benefits they have derived from participating in the programme. They acknowledged that prior to the programme, they had certain issues or behavioural shortcomings in their personal lives, but their training and teaching of life skills have helped them work to resolve these issues. One of the coaches acknowledged that prior to the training he received as a coach in the programme, he used to abuse alcohol, but having gained full understanding of the damages of alcohol abuse, he is more conscious of his actions and therefore stopped indiscriminate consumption of alcohol.

Before I became a SKILLZ Guys coach I was used to going out with my friends and abuse alcohol but now I do not do that anymore because I preach against alcohol abuse to my participants and I would not want them to see me drinking because I am like the book they read. (Coach of SKILLZ Guyz)

In the same vein, another coach stated that he intends to change his sexual behavior, having been able to grasps the dangers in unprotected and concurrent sexual involvement.

I have gained a wealth of experience from the curriculum especially on health dangers relating to drug abuse and sexual abuse. Before I joined to become a SKILLZ Guyz coach I did not believe in the use of condoms despite I was aware of the risks involved in having unprotected sex but now I use condoms since this is what I preach to young boys in my community. (Coach of SKILLZ Guyz)

Another, coach stated that the programme has helped him to better manage his anger, which has significantly improved his relationship with his girlfriend:

The programme has made me to form better relationship with people around me through respect. ... The practice "Staying in Control" has helped me manage my anger and also because I see myself as a role model to boys in my community. Before I became a coach, I hardly seek consent from my girlfriend because I believed that as a man I do not have to seek for her consent; but since I joined the programme right from the pilot phase, I got to realise how important it was to seek consent from my girlfriend. (Coach of SKILLZ Guyz)

These statement by the SKILLZ Guys coaches were also echoed by the Master Coaches, who noted that some coaches had reached out to them about the significant changes the programme have had in their lives as they try to imbibe and internalise the values from the programme and serve as positive role models to those they are tutoring. The statements below typify their responses:

During our last Coaches' Refresher Training (CRT), some coaches approached me and disclosed that the programme has affected them in ways such as they were able to stop taking alcohol because they want to live an exemplary life for their participants. (Master Coach)

# Challenges of the SKILLZ Guyz Programme

Though coaches and organizers cited many benefits of SKILLZ Guyz, they also called attention to some challenges faced in the programme design and curriculum, as well as in engaging participants and stakeholders. Limited time, attitude of school administrators, and difficulties in assembling out-of-school adolescents were all challenges faced by organizers and Coaches during programme implementation.

Among programme design challenges, Coaches noted that they had to skip some scheduled activities due to limited time for the intervention. The activities and practices most often skipped were 'Fair Play Soccer,' Condom Demonstration, and Winning Combination. Some schools only offered inopportune times for the intervention, and some practices were identified as taking more than the allotted time:

Some schools do not like any programme to disrupt their school curricula and thus might approve inappropriate time, shift or cancel an initial approved timing for carrying out practices. Inappropriate times include: thirty minutes instead of one hour, break periods, one hour before or after school closing hour. Pooling participants especially out-of-school youths is usually challenging due to conflicting interests such as their means of earning money; some practices such as "Our changing body" and "Be responsible" requires more

than the scheduled one hour to run the practice; some teachers due to class work might not release their students early enough to come and participate in the practices. (Coach of SKILLZ Guyz)

"Fair play soccer" which is scheduled for 20 minutes sometime is skipped because of insufficient time given by some schools. Condom demonstration in practice six, "Winning Combination", is sometimes skipped in some school interventions because some teachers would not approve of it. (Coach of SKILLZ Guyz)

They also acknowledged that the football session is good because it gives the whole exercise some excitement and physical exertion. The coaches however echoed the need to keep updating the curriculum of the programme in order to capture more adolescents and their diverse learning needs.

Subsequently, several suggestions were given to help boost the effectiveness of the SKILLZ Guys intervention programme. The YEDI team and coaches believe that duplication of the programme in other states, further commitments and investment of time and finance, and sustainable follow-up will significantly increase the outreach and impact.

The factors this curriculum addresses such as violence and hate speech affect boys of all tribes in Nigeria; hence, I will love to see the curriculum being implemented all over Nigeria. It would be great to intervene on the boys at this age to avert community unrest in the future. The curriculum should be more sustainable in that participants should not only go through its 10 practices and end there. There should be some further programmes that the former participants should still be engaged in so that the positive impact SKILLZ Guyz programme had on that should stay refreshed. (Master Coach)

In terms of implementation, I hope to see the curriculum implemented in other States and not only in Lagos State because there are some States, especially Northern States with serious issues of drug abuse and they need our help. (Coach Development Coordinator)

More condoms, both male and female condoms from YEDI for demonstration while carrying out interventions; Computer system in order to capture data in the field and send immediately to YEDI staff in charge of data (Coach of SKILLZ Guyz)

In as much as the programme is very engaging, these participants still need some form of economic empowerment. (Head of Programmes).

#### **Notes on Study Implementation & Limitations**

Despite promising results, there are several notable limitations to this evaluation, discussed below:

First, the informed consent process in the SKILLZ Guyz evaluation protocol was not implemented as planned prior to data collection with participants. Groups of participants were given verbal information about the study by their SKILLZ Guyz Coaches, including the risks and benefits of participation in the evaluation, and given the opportunity to opt out of participating. In order to address this shortcoming, GRS, YEDI, and the external evaluator Dr. Akinwale planned and implemented a retroactive consent process, and informed the NMR IRB of this development. SKILLZ Guyz Coaches were able to follow-up with participants, parents, and facility directors, where necessary, and obtain written informed consent and youth assent in a retroactive fashion for all study participants.

To prevent this in the future, GRS and YEDI are working together to improve policies to strengthen the ethical implementation of research studies. GRS and YEDI are devising a standard procedure for informed consent with adolescents, which will be easily adapted to any new study, and easily integrated into child protection policies in the organizations. GRS and YEDI are committed to the protection of all participants involved in research, and will document proper training of staff on all updated policies around ethical protocols and policies.

Second, participant baseline and endline survey responses were not matched with response ID numbers or other identifiers. Participant names were not associated with survey responses, but no other identifiers were used to ensure that the sample at baseline and endline could be matched. Program attendance indicates that the endline sample includes only those that also completed the baseline survey, but a lack of paired responses limits the statistical analysis that can be conducted in a valid manner. For example, paired t-tests would have been the most appropriate assessment of significant change over the course of the intervention, but in the absence of matched responses, independent samples t-tests were used instead, a less powerful analytical tool. Aggregate results still present favorable effects of the programme.

These issues can be traced somewhat to miscommunication between the study team members and unclear roles and responsibilities for each party, including oversight on the study. Future studies will also include a longer planning process in order to clarify each individual's roles and responsibilities, and establish clear guidelines for communication within and among partners, particularly with the lead investigator.

Additional limitations include the length of the follow-up period: conducting the endline survey immediately following the intervention does not provide information about the persistence or extinction of program effects. Data collection at a third follow-up time point could be useful in

future studies. Additionally, a control group would allow for greater understanding of the impact of the program and given greater rigor to evaluation outcomes. Additional resources would be required to address some of these limitations.

The inclusion of sensitive topics in the evaluation could have introduced some bias in responses. For example, in the survey items related to gender-based violence, though the wording stated "Have you ever" done this behavior, reports of violence were lower at endline, indicating social desirability bias. Protection of participant confidentiality was emphasized in order to limit this type of bias, though overreporting and underreporting cannot be ruled out. Additionally, the lack of identifiers to match baseline and endline survey responses means that participants who perpetrated GBV may have dropped out of the program. That is, those who perpetrated GBV may not have been present at the endline survey, indicating bias rather than a programme effect.

#### **Summary**

Overall, all three objectives of the SKILLZ Guyz evaluation were met. The study assessed the knowledge, attitudes and beliefs of in-school and out-of-school adolescents in Lagos, Nigeria across several factors showing positive results indicating the SKILLZ Guyz program is effective with adolescent boys and young men. Additionally, study results show that the program is effective with both in-school participants as well as out-of-school participants with slightly larger gains in the out-of-school group. Lastly, several components of program and curriculum design have been identified for improvements in the program over time.

There were several notable differences in characteristics of the in-school and out-of-school groups: OS participants were mostly older, not living with either parent, and residing in larger households than IS adolescents. Nearly half of OS participants had completed secondary school at the time of the intervention, compared to less than one-third of IS participants. About half of OS participants were regularly attending school, compared to nearly all of IS participants. Across both groups, most participants expressed that they expected to complete four more years of schooling.

A greater proportion of OS participants reported ever having sexual intercourse than IS participants, but overall levels of sexual activity were low: less than 1/3 of participants reported ever having sex. Among participants who had had sex, less than half reported consistent condom use, and use of other contraceptive methods was also low.

Alcohol use differed between IS and OS participants, less than 20% of IS participants reported drinking, compared to about half of OS participants. A greater proportion of OS participants reported problematic alcohol use, indicated by consuming six or more bottles on one occasion, not being able to stop drinking once started, and feeling guilt or remorse after drinking, among others.

Perpetration of violence against female partners was high among all participants, particularly psychological violence such as insulting a partner, humiliating her in front of others, and doing things to scare or intimidate her. A lower proportion of participants reported using physical

violence, but behaviours such as slapping or pushing/shoving a female partner were reported by nearly 1/3 of participants.

Significant increases in HIV knowledge and pregnancy and contraceptive knowledge were observed at baseline and endline, measured by constructed scale variables. Significant improvements were also observed in self-efficacy, self-esteem, and gender equitable attitudes of participants, measured at baseline and endline. On all measures except gender equitable attitudes, OS participants started with a lower mean score at baseline and had a greater change in mean scores through the course of the intervention.

YEDI staff and Coaches reported the value of the programme in imparting life skills and SRH information not offered elsewhere to participants. The role of soccer in creating a safe and comfortable environment for discussion and learning was also noted as a key aspect of the programme. Coaches and YEDI staff describe strong positive feedback they received from teachers and staff of the institutions, as well as some parents about how the programmes have significantly improved the social functioning of adolescents, their relationship with the adolescents, and other aspects of the beneficiaries' well-being. Coaches reported positive impacts on their own behaviour as a result of their training and facilitation of the programme, and recommended that the programme be expanded to other parts of Nigeria.

However, the programme still exhibited some shortcomings. The organisers and coaches all called attention to some challenges faced in the programmes and proposed certain ways through which these challenges can be ameliorated. Challenges cited include limited time, attitude of school administrators, and difficulties in assembling out-of-school adolescents. Coaches also complained that they had to skip some scheduled activities due to limited time, they identified those activities mostly sacrificed due to time including 'Fair Play Soccer,' Condom Demonstration, and Winning Combination. They also acknowledged that the football session is good because it gives the whole exercise some excitement and physical exertion. The coaches however echoed the need to keep updating the curriculum of the programme in order to capture more adolescents and their diverse learning needs.

This evaluation demonstrates overall positive impacts of SKILLZ Guyz on participants' knowledge and attitudes related to HIV, SRH, gender equality, self-efficacy, and self-esteem. YEDI capitalised on its unique youth-led strategy targeting adolescents IS and OS with activities that included training of coaches, providing SRH and life skills education, providing adolescent-friendly HIV/STI testing services, as well as encouraging adolescents to support each other in taking up health-seeking behaviour. The programme also helped to provide the coaches and participating adolescents with opportunities to improve their knowledge and was noted to have been effective in educating participants about SRH and increasing information that can help dispel unwarranted gender scripts, as well as providing young people with self-development options. To these extents, the programme can be deemed effective.

#### **Recommendations**

In order to build on the successes of the SKILLZ Guyz intervention, YEDI and GRS recommend several changes to the programme design and implementation. First, updates to the curriculum should be carried out in accordance to the feedback from Coaches and YEDI staff. Several practices should be shortened or broken out into different sessions in order to address the time constraints cited by many Coaches.

Second, YEDI and GRS should work to better form and maintain relationships with programme stakeholders, such as school officials. Coaches should receive training on building and maintain rapport with these administrators in order to have their buy-in for implementation of the intervention. Better cooperation with school officials may help to address the timing and scheduling of interventions, as officials may view SKILLZ Guyz more favorably if they fully understand the benefits of the programme.

Additionally, GRS and YEDI should consider augmenting the curriculum with economic capacity-building for Coaches and participants, in order to address the larger context in which participants and Coaches exist. Provision of economic opportunities such as skill-building for employment may further the benefits of the SKILLZ Guyz programme. Finally, GRS and YEDI should consider expanding the programme to other areas of Nigeria, as noted by Coaches, who feel that many other young men could benefit from the programme.

Future study of SKILLZ Guyz and its effects should engage adolescents more directly in the evaluation process, including participatory methods that allow them to have more say in the process. Additionally, future study teams should invest more time in planning study implementation in order to avoid some of the shortcomings of this evaluation. Further study should investigate the knowledge, behavioral, and attitudinal outcomes of the intervention at longer follow-up periods to assess the persistence of program effects.

Appendix 1: Survey item frequencies

	% Answering correctly						
HIV Knowledge	Basel	ine	End-line				
	IS	OS	IS	OS			
It is possible for a healthy-looking person to have HIV	55.40%	35.10%	79.40%	69.10%			
People can get HIV from having sex with a person who has HIV	90.40%	80.90%	93.10%	83.00%			
People can't get HIV from mosquito bites	87.10%	55.30%	88.60%	74.50%			
People can't get HIV by sharing food with a person who has HIV	79.6%	53.60%	83.70%	77.10%			
HIV can be transmitted from mother to baby during pregnancy	56.00%	62.50%	73.00%	58.00%			
HIV can be transmitted from mother to baby during delivery	34.60%	40.80%	60.20%	46.30%			
HIV can be transmitted from mother to baby by breastfeeding	83.10%	76.00%	84.70%	77.90%			
People can reduce their chances of getting HIV by not having sex at all	61.90%	54.60%	68.30%	81.60%			
People can reduce their chances of getting HIV by having one uninfected and faithful sex partner.	75.00%	59.80%	75.20%	86.70%			
People can reduce their chances of getting HIV by using condom every time they have sex	75.50%	66.70%	86.70%	83.70%			

Pregnancy and Contraceptive	% answering correctly							
Knowledge	Baseli	ne	Endli	ne				
	IS	OS	IS	OS				
A girl or woman can get pregnant on the very first time she has sexual intercourse	69.30%	58.40%	80.8%	85.9%				
Condoms are the only contraceptive method that protect against both pregnancy and STI/HIV	75.00%	65.8%	79.6%	80.0%				
Using condom correctly and consistently is an effective method of preventing pregnancy	85.60%	59.60%	88.30%	84.8%				

Cale Terranova	% Agree						
Self-Efficacy	Bas	seline	End-line				
	IS	OS	IS	OS			
No one has the right to touch me in a way that makes me uncomfortable, such as on the thigh, genitals, buttocks, etc.	76.80%	70.80%	90.50%	89.90%			
I know how to stand up to peer pressure (i.e. to drink alcohol or have sex) from my friends	55.50%	48.20%	73.50%	81.60%			
I know how to express my anger without being violent, such as hitting, kicking, or shouting aggressively		59.80%	86.30%	83.80%			
I would stand up to my friends if they were harming others (such as touching others inappropriately or bullying others	65.50%	64.00%	81.70%	83.70%			
I have the ability to shape my future	89.60%	74.60%	94.20%	89.60%			
I should respect the rights of others, such as their right to their own opinions and beliefs	88.40%	74.60%	94.20%	86.70%			

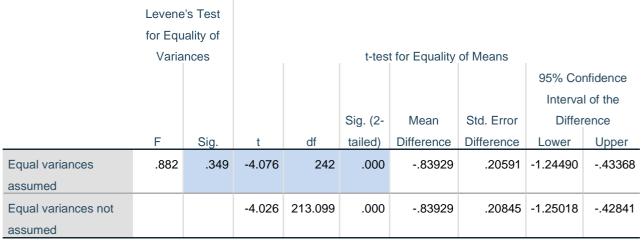
Self-Esteem	% answering more favorably						
Sen-Esteem	Baseline		End-line				
	IS	OS	IS	OS			
I usually feel good about the choices I	82.90%	64.20%	84.60%	80.80%			
make							
I feel confident I will be able to	92.10%	66.70%	94.30%	94.9%			
accomplish my goals in life							
I believe that I am worthy and	87.10%	66.40%	95.20%	90.90%			
deserving of good things in life							

Caradan Fanistable Assistandan	% Expressing more equitable attitude							
Gender Equitable Attitudes	Base	line	Enc	l-line				
	IS	OS	IS	OS				
A woman's most important role is to take care of her home and cook her home and family	7.90%	20.50%	17.10%	46.90%				
Changing diapers, giving kids a bath, and feeding kids are the mother's responsibility	11.40%	27.60%	16.20%	45.50%				
A man should have the final word about decisions in his home	12.90%	25.90%	22.10%	58.10%				
A woman should obey her husband in all things	13.60%	24.30%	24.80%	34.70				
The husband should solely take all household decisions (e.g. buying major household items)	30.90%	21.40%	28.80%	41.80%				
A woman should tolerate violence in order to keep her home together	31.40%	32.20%	41.30%	54.60%				
There are times when a woman deserves to be beaten	20.10%	26.70%	16.20%	27.30%				
A woman cannot refuse to have sexual intercourse with her husband	24.60%	28.70%	31.40%	38.10%				
To be a man, you need to be tough	49.60%	45.20%	69.50%	76.50%				
Men should be embarrassed if they are unable to get an erection	25.50%	38.10%	49.00%	66.70%				
If someone insults me, I will defend my reputation with force if I have to	26.80%	28.70%	39.40%	48.00%				
A real man in Nigeria is the one with many wives	51.40%	40.50%	67.60%	64.60%				
A real man produces a male child	26.40%	43.50%	43.80%	60.60%				
A man who does not have an income is of no value	67.10%	51.70%	81.90%	71.70%				
A divorced woman has no value	60.00%	34.50%	70.50%	62.60%				
Only when a woman has a child is she a real woman	47.10%	28.10%	51.90%	52.50%				
Men need sexual intercourse more than women	52.10%	33.60%	60.00%	46.90%				
Men don't talk about sexual intercourse, you just do it	39.30%	40.90%	62.90%	59.20%				
It is a woman's responsibility to avoid getting pregnant	30.00%	46.90%	32.70%	55.60%				
I would be angry if my girlfriend/wife asked me to use a condom	39.60%%	47.40%	60.00%	66.30%				

#### Appendix 2: T-tests for significance

#### **HIV Knowledge**

#### Independent Samples Test comparing baseline & endline scores – In-school



		's Test for ality of							
	Variances								
								95% Con	fidence
					Sig.			Interval	of the
					(2-	Mean	Std. Error	Differe	ence
	F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper
Equal variances	4.605	.033	-5.062	205	.000	-1.30657	.25811	-1.81547	79767
assumed									
Equal variances not			-4.996	184.703	.000	-1.30657	.26153	-1.82254	79061
assumed									

# **Pregnancy and Contraception Knowledge**

#### Independent Samples Test comparing baseline & endline scores – In-school

	Levene	's Test for									
	Equality of Variances				t-test for Equality of Means						
								95% Co	nfidence		
					Sig.			Interva	l of the		
					(2-	Mean	Std. Error	Differ	ence		
	F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper		
Equal variances	.649	.421	-2.073	236	.039	19853	.09576	38719	00987		
assumed											
Equal variances			-2.047	206.746	.042	19853	.09698	38973	00733		
not assumed											

		e's Test uality of							
	Varia	ances			t-test	for Equality	of Means		
							Std.	95% Cor	nfidence
					Sig.		Error	Interva	l of the
					(2-	Mean	Differenc	Differ	ence
	F	Sig.	t	df	tailed)	Difference	е	Lower	Upper
Equal variances	4.128	.043	-4.608	204	.000	62037	.13462	88579	35495
assumed									
Equal variances not			-4.642	203.490	.000	62037	.13366	88390	35684
assumed									

# **Self-efficacy**

# Independent Samples Test comparing baseline & endline scores – In-school

	Levene for Equ	e's Test uality of							
	Varia	inces		t-test for Equality of Means					
								95% Cor	nfidence
					Sig.			Interva	l of the
					(2-	Mean	Std. Error	Differ	ence
	F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper
Equal variances	1.702	.193	-5.240	242	.000	75385	.14387	-1.03724	47045
assumed									
Equal variances not assumed			-5.286	228.703	.000	75385	.14262	-1.03487	47282

		e's Test											
	Variances				t-test for Equality of Means								
								95% Co	nfidence				
								Interva	I of the				
					Sig. (2-	Mean	Std. Error	Diffe	rence				
	F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper				
Equal variances	.011	.916	-6.313	212	.000	-1.20937	.19157	-1.58699	83174				
assumed													
Equal variances not			-6.293	205.405	.000	-1.20937	.19217	-1.58825	83049				
assumed													

#### Self-esteem

# Independent Samples Test comparing baseline & endline scores – In-school

	Levene	e's Test for								
	Equ	uality of								
	Va	riances		t-test for Equality of Means						
								95% Cor	nfidence	
								Interval	of the	
					Sig. (2-	Mean	Std. Error	Differ	ence	
	F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper	
Equal variances	6.586	.011	-1.988	243	.048	56667	.28506	-1.12816	00517	
assumed										
Equal variances			-2.102	239.746	.037	56667	.26962	-1.09779	03554	
not assumed										

	Levene	's Test for									
	Equ	ality of									
	Var	iances		t-test for Equality of Means							
								95% Co	onfidence		
								Interv	al of the		
					Sig. (2-	Mean	Std. Error	Diffe	erence		
	F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper		
Equal variances	13.937	.000	-5.552	205	.000	-1.97348	.35548	-2.67435	-1.27262		
assumed											
Equal variances			-5.631	193.618	.000	-1.97348	.35046	-2.66470	-1.28227		
not assumed											

# **Gender Equitable Attitudes**

# Independent Samples Test comparing baseline & endline scores – In-school

	Levene's Test for Equality of										
	Varia	ances	t-test for Equality of Means								
								95% Confidence			
								Interval of the			
					Sig. (2-	Mean	Std. Error	Difference			
	F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper		
Equal variances	3.820	.052	-5.126	243	.000	-7.68576	1.49939	-10.63923	-4.73230		
assumed											
Equal variances			-5.019	204.686	.000	-7.68576	1.53140	-10.70511	-4.66642		
not assumed											

	Levene's Test for Equality of									
	Variances		t-test for Equality of Means							
								95% Confidence		
								Interval of the		
					Sig. (2-	Mean	Std. Error	Difference		
	F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper	
Equal variances	7.935	.005	-5.593	213	.000	-10.25641	1.83386	-13.87126	-6.64157	
assumed										
Equal variances			-5.520	192.913	.000	-10.25641	1.85820	-13.92142	-6.59141	
not assumed										