EVALUATION OF THE IMPACT OF LIFE SKILLS BASED HIV/AIDS EDUCATION USING FOLKTALES IN PRIMARY SCHOOLS IN NIGERIA

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Abstract

Thirty folk stories, were adapted with reproductive health, HIV/AIDS and life skills messages to strengthen the teaching, promote the interest and participation of children in AIDS education in Nigeria. Implemented in 45 primary schools; 15 of which were provided with the storybooks, facilitator's manuals and the national Family Life and HIV/AIDS Education curriculum, 15 with only the curriculum and 15 with neither the books nor the curriculum. Pupils in the first set of schools (program schools) were almost five (Odds Ratio [O.R.] = 4.76) times more likely than non-program pupils to discuss HIV/AIDS with parents, two times (O.R. = 2.20) more likely to have improved knowledge of reproductive health and more than three times (O.R. = 3.05) improved knowledge of life building skills. The stories appealed to children, and probably to teachers and parents. Successful early HIV/AIDS education will require that these programmatic efforts be continued, scaled up and done in conjunction with other interventions in the community.

Key words: folk stories, HIV/AIDS, parent-child communication, life building skills

INTRODUCTION

In countries with generalized AIDS epidemic like Nigeria there is growing emphasis to start HIV/AIDS education early to reach children and adolescents before they become sexually active and to prepare them with HIV risk reduction information. In practice this has been hindered by the general belief that, if children are exposed to sexuality education early, they will become promiscuous, a belief strongly held by parents, religious and opinion leaders in the community (NGTF, 1996; Haugh and McCauley, 1998; Senderowitz, 2000). Yet on the contrary information, education, and access to services should contribute to the development of life skills that can help reduce a young person's vulnerability to premarital sex and to HIV infection (*WHO; 2003*, Diclemente, 1993; Phelps et al, 1994).

Most programs initiative have currently focused on youth 15 to 24 years old in secondary schools (Fawole et. al., 1999; UNICEF 2006). The consequence is that life skills based HIV and AIDS education targeted at primary school pupils is very uncommon in Nigeria. Individuals and agencies have remained apathetic to work with younger children to promote HIV/AIDS education for fear of failure. The implementation of program designed for young people at this level has remained weak. The result is that primary school pupils have been neglected in major HIV/AIDS education projects or at best treated as part of the larger adolescent population in the country, (CENCHIC 2007).

However, many questions remain about what types of programs are appropriate and effective with this younger age range and what types of behavioral outcomes could be used to measure effectiveness of a program with pre-sexually active youth. The assumption is that regardless of high levels of knowledge about prevention strategies, young people may engage in unprotected sex because they lack the skills to negotiate abstinence, reduce the number of partners that they have or use condoms. If young people possess adequate life skills, levels of risky behaviour should be lower. Program targeting younger adolescents have tended to promote life skills (WHO 2003; UNAIDS 2004). The study was carried out as a result of the search for culturally innovative ways of reaching younger adolescents with complete life skills based HIV/AIDS education that appealed to both children, teachers and parents alike. It is in the light of this that Center for Children in Crisis (CENCHIC) sets out in 2005 to promote life skills based HIV and AIDS education in primary schools in Plateau State using folktales.

BACKGROUND

A need assessment conducted among 500 primary school pupils in 10 schools revealed that most of the pupils (74.3%) knew AIDS was transmitted sexually but the percentages aware of other transmission pathways were much lower. Attitudes were poor, as 63% felt AIDS did not constitute a medical problem in Nigeria, while (75.6%) of the pupils admitted they would not want to share with or take care of people living with HIV and AIDS. The pupils in lower classes were more likely than those in higher class to have poor knowledge and attitude most of the time ($P < 0.05$) and there were no differences between the boys and girls in this respect. About 98.2%) of the pupils appeared not to be sexually active, this makes preventive education timely and appropriate.

In 2006 Plateau State had a population of about 3.2 million people (NPoC 2006), making the state the fourth largest in north central zone of Nigeria. The state has consistently recorded higher sero-prevalence than the national average, it was 8.5% to 5.4 in 1999, 6.3% to 5.0 2003 and 4.9% to 4.4 in 2005. In 1999 the state recorded the highest prevalence rate second to Benue State in North Central Nigeria and the third highest in Nigeria after Akwa Ibom and Benue States (FMOH 2006).

The Centre for Children in Crisis (CENCHIC) with support from Plateau AIDS Control Agency (PLACA) implemented a community based HIV/AIDS education in pilot primary schools as part of the World Bank HIV/AIDS program of assistance to Nigeria. The project was also partly supported with Funds for Leadership Development (FLD) of the John D. and Katherine T. Mac Arthur Foundation in Nigeria. The Nigerian government placed high premium on life skills based HIV/AIDS education beginning from primary school. This informed the policy directive to introduce Family Life and HIV/AIDS Education (FLHE) curriculum in schools beginning from the primary in the country (FME 2002). While the implementation of the curriculum has enjoyed some implementation at the secondary school level the primary school component has been neglected. It is against this background that CENCHIC initiated the community based life skills HIV/AIDS education in Plateau state.

The project aims to strengthen the teaching and promote the interest and participation of children, teachers and parents in life skills based HIV and AIDS education in the primary school within the community using folktales. Specifically the project was designed to provide primary school pupils with facts about reproductive health particularly knowledge of their bodies, STIs, HIV/AIDS and skills needed to delay sexual intercourse and imbibe abstinence before marriage. To improve communication and discussion of HIV and AIDS issues between pupils in primary schools and their parents, improve communication between boys and girls in primary schools and among young people in the community, and provide primary school pupils with the information and skills required to face peer pressure and make healthy decisions and choices.

THE PROGRAM

The project commenced with the collection of series of narrative workshops involving pupils, community storytellers and parents in the second quarter of 2005. Thirty stories were adapted with messages of HIV/AIDS and life building skills and published in a Childhood HIV/AIDS Education series in 2006. The titles in the series are included in the appendix. A number of advocacy visits were conducted to community leaders, Local Government Area (LGA) chairmen, LGA Education Board, the Primary School Authorities and the Parent Teachers Association (PTA) of the project schools between January and May 2006. The teachers were trained in a series of workshops between June and September in FLHE curriculum between June and September 2006. The purpose of the project and the advantages were thoroughly explained to these stakeholders and duty bearers to create awareness and community support for the project in preparation for the implementation of the project in 2006/2007 academic session which commenced September 2006.

During training, primaries 4, 5 and 6 teachers were taken through the FLHE manual. The manual is divided into 5 sections and covered topics like human development, personal skills, HIV infection, relationship and society and culture. Each topic is organized into sections. The trained teachers were required to use the storybooks with Family Life and HIV/AIDS Education (FLHE) curriculum twice a week during the 2006/2007 academic session among pupils in classes 4, 5, and 6. Based on memorandum of understanding with the school authority the story time period and at least one of the English language period made provision for supplementary readers were to be used to implement the program. Previous

program of this nature identified timing as constraint to effective implementation (Kinsman 2001, Unicef, 2006). The teachers used either of these periods to implement the project. In all the schools, a teacher is usually assigned to a class where s/he handles all the subjects for that class.

During the intervention period, program pupils took the storybooks home on weekends to involve their parents in the project. They were also expected to take home slips containing instructions on what sets of questions they should ask their parents after sharing with them the story. At the completion of each topic a small classroom drama presentation based on the storybook is usually organized by the pupils with the assistance of the teacher to promote role play and reinforce the lesson learned on the FLHE topic considered. The project was monitored monthly to ensure that teachers were implementing the project as planned.

THEORETICAL FRAMEWORK

The folktale strategy is premised on the fact that; unfamiliar issues of HIV and AIDS could be made very attractive to young people if presented in a simple way for them to understand and folktales hold great potentials in this direction. In addition, folktale has traditionally remained one veritable means of early childhood education in African society. If properly packaged, folktale materials can be made interesting to pupils, acceptable to teachers, parents and community opinion leaders. Thus, with the cooperative efforts of parents, teachers, other stakeholders and community institutions like primary school children can be properly guided and nurtured early about their sexuality to imbibe responsible behavior hence, good health.

The design and implementation of the project was informed by ideas from step-to-behavior-change framework, which synthesizes theories of communication and behavior change into a practical model to guide reproductive health and HIV/AIDS education communication programs. The framework in turn derived its ideas from earlier works like; theory of reasoned action and health belief model. Steps to behavior framework describes five stages through which people pass as they change their behavior: knowledge, approval, intention, practice and advocacy (Piotrow 1997; Kim et al. 2001). Effective communication campaigns determine the stage that their audience is at and focus their energy accordingly. The project focused on sets of young people majority of whom were not yet sexually active. The emphasis was therefore largely on provision of knowledge on reproductive health, sexually transmitted infection, HIV/AIDS and life building skills with parents and teachers as partners. This emphasis informed the design of the evaluation with a focus on examining differences on these areas of knowledge among primary schools in Nigeria that can be indicative of the influence of the intervention program.

SAMPLE DESIGN, DATA COLLECTION AND ANALYSIS

The project was primarily planned to be implemented in 45 schools over a period of three years. Owning to a combination of logistics and financial constraints the implementation is being conducted in phases. In 2006/2007 academic session the project trained teachers in the first set of 15 schools in FLHE curriculum, provided the schools with 50 complete sets of the 30 storybooks each. In the same session it was only possible in the other set of 15 schools to train the teachers and provide them with the FLHE curriculum but no storybooks. And the third sets of 15 schools were merely identified for scaling up as more funds become available for the implementation of the project. The three sets of schools are treated as program schools, control schools 1 and 2 for the purpose of this evaluation.

At the conception of the project the State was stratified into 3 cultural zones. Five LGAs at least one from each zone was randomly selected from the 17 LGAs in the State to pilot the community based primary HIV/AIDS education project. These are Jos North, Bassa, Mangu, Langtang north and Shendam LGAs. The 5 LGAs therefore reflected the cultural diversity of the people and the HIV/AIDS prevalence in the State. In every LGA the list of schools were collected from the education office from which 9 primary schools (5 in the rural areas and 4 schools in urban areas) were included in the project. In the first phase, two primary Schools at the LGA headquarters and four schools in the contiguous rural areas except in Jos north LGA where all the project schools fell in the urban area.

To determine the impact of the project, a quasi experimental design involving a posttest only control group was employed because of lack of comparable baseline data on the target pupils before full

implementation of the project in 2006/2007 academic session. The assumption was that the pupils were similar in terms of the outcome variable before the implementation of the project. Equal sample of 15 pupils were planned for primary 4, 5 and 6 in each of the 45 schools covered during the data collection exercise. The samples were randomly selected from the class register with the assistance of the teacher. This number was however exceeded in some of the program schools where more pupils wanted to be included in the sample. It was expected that 45 pupils will be interviewed per school and a set of 15 schools in the program, control Schools 1 and 2 will produce a total of 675 pupils each, however the sample distribution turned out to be 709 in program schools, 606 in control 1 and 638 in control 2 schools totaling 1953 pupils interviewed to achieve the objectives of this study.

Questionnaire was administered to the pupils by 30 young trained field assistants largely from University of Jos half of which were females. The questionnaire tests pupil's knowledge on reproductive health (sexual maturity of boys and girls), STI, HIV and AIDS and life building skills. The questionnaire was broadly divided into two sections (see appendix), the first section collected information on the background characteristics of the pupils while the second section collected information of their knowledge, attitude, practices and behavior.

The questionnaire was meant to be self administered however where a pupil could not understand a question, field assistant was on hand to take the pupils through on one on one basis. Prior to any interview, assistants sought permission from the school authority and spent time to explain the purpose of the study and request the pupils to give the permission to commence the interview. All the pupils approached agreed to participate. In each school, interviews were usually conducted in private locations or rooms away from possible distraction from other pupils with the cooperation of the school authority who agreed to provide the facilities. The data collection lasted for a week in the month of May 2007 prior to vacation for the 2006/2007 academic session.

The evaluation study focused on four areas of knowledge and attitude-: reproductive health, sexually transmitted infections, HIV/AIDS, and life building skills. It also examined the effect of the program on parent-child communication. Each of the knowledge variables is a composite measure combining two or more survey questions. Each pupil were credited with a knowledge score on each of the four outcome variables. Mean scores were calculated for each category by summing up scores of pupils on each of the outcome measures and dividing by the total number of pupils under consideration. Program effects were estimated by comparing differences in percentage mean scores of pupils on the outcome measures for the program and control schools at 5% confidence level. The likelihood of scoring average and above in the four areas of knowledge among primary school pupils in Plateau State was controlled for in a logistic regression model. In-depth interview on the impression of the pupils on the storybooks were tapped, transcribed verbatim, coded and analyzed to complement the questionnaire data. The triangulation provided a form of external validity and reliability check on the questionnaire data. The analysis was not meant to establish causality between program elements and observed outcomes, as the research design does not permit such claims. Instead, trends in outcomes are correlational and suggestive of program impact.

RESULTS

Demographic, Socio-Economic And School Characteristics Of The Pupils In The Program And Control Schools

Data were collected in May 2007 from 1,953 pupils; 709 in the program, 606 in the control 1, and 638 in the control 2 schools. Pupils in both groups were broadly similar in terms of socioeconomic background characteristics. An almost equal number of males to females were sampled as shown in table 1. The table reveals that 52% were males while 49% were females. In the program schools, 58% were males while 42% were females. In Control 1, 44.7% were males and 55.35 females. Lastly, In Control 2, there were 52% females and 48% males. The youngest pupils were 8 and the oldest were 14 years, the median and mean ages were 11 and 11.04 years respectively.

Table 1: Selected Characteristics of Respondents

Characteristics		Exposure to Project			Total N=1953
		Program N=709 (%)	Control 1 N= 606 (%)	Control 2 N=638 (%)	
Sex	Female	42.3	55.3	47.6	48.1
	Male	57.7	44.7	52.4	51.9
Locality	Urban	41.3	69.3	44.8	51.2
	Rural	58.7	30.7	55.2	48.8
School Type	Public	61.9	43.9	82.9	63.2
	Private	38.1	56.1	17.1	36.8
Age	<=9	32.7	33.3	36.7	34.2
	10-11	29.9	31.4	29.5	30.2
	12 +	37.4	35.3	33.9	35.6
Class	Primary 4	32.7	32.5	32.8	32.7
	Primary 5	33.3	32.2	33.4	33.0
	Primary 6	34.0	35.3	33.9	34.4
Religion	Christianity	91.0	85.3	88.4	88.4
	Others	9.0	16.4	11.6	11.7
Parenting Status	Both parents	64.5	76.7	65.2	68.5
	Mother/father only	20.0	14.2	20.2	18.3
	Others	11	10.5	9.1	10.2

About half of the schools included in the study (51.2%) were located in the urban areas. Urban and rural schools represent 41.3% and 58.7% in the program category, and it was 69.3% and 30.7% in control 1 and 44.8% and 55.2% in control 2 schools categories respectively. A greater percentage (63.2%) of the pupils attended public schools. The pupils who were 9 years and below were 34.2%, while those that were between the ages of 10-11 and 12 years and above were 30.2% and 35.6% respectively. Almost equal number of pupils were drawn from primary 4, 5 and 6 representing 32.7%, 33% 34.4% in that order. Majority (88.4%) of the pupils were Christians and they live with both parents (64.5%). There were no significant differences among the pupils in the three sets of schools in terms of the important background characteristics considered in the analysis.

KNOWLEDGE OF REPRODUCTIVE HEALTH, HIV/AIDS, STIS AND LIFE BUILDING SKILLS

The impact of the project was evaluated by comparing knowledge of the pupils on reproductive health (RH), HIVAIDS, STIs and life building skills (LBS) in program and control schools.

Table 2: Percentage mean scores of primary school pupils on knowledge of Reproductive health, STI, HIV/AIDS, Life Building Skills, Discussion with peers and parents and pledging of abstinence 2007.

Variable	School Status				% Mean difference between program and		
	Program (N=709)	Control 1 (N=606)	Control 2 (N=638)	Total sample (N=1953)	*Control 1	*Control 2	*Total sample
Knowledge of RH	36.3	22.5	23.5	27.9	13.8	12.8	8.5
Knowledge of STI	21.8	16.2	11.3	16.7	5.6	10.5	5.2
Knowledge of HIV/AIDS	77.0	68.9	43.5	63.5	8.1	33.5	13.5
Knowledge of Life Skills	53.4	45.1	30.1	43.2	8.3	23.3	10.2
Discuss HIV/AIDS with Peers	77.1	69.5	47.8	65.2	7.6	29.3	11.9
Discuss HIV with parents/guardians	56.0	44.7	30.1	44.0	11.3	25.9	12.0
Preferred to abstain from sex till marriage	82.8	74.2	60.5	72.8	8.6	22.4	10.0

*p<=01

Pupils in the program schools have improved knowledge in all the four areas (reproductive health, sexually transmitted infection, HIV/AIDS and life skills) considered in this study. The differences were larger and significant between the program pupils and those in control schools 2 where pupils were not provided with storybooks, FLHE curriculum and the teachers were yet to be trained than in control schools 1 where the teachers have been trained and provided with FLHE curriculum but no storybooks. The intervention probably improved discussion of HIV/AIDS issues with peers and with parents among the program pupils than those in control schools. It is important to note that program pupils consistently recorded higher mean scores in the four areas of knowledge measured as presented in the upper compartment of Table 2 than the field mean scores for all the total sample. In the same way they were on the average more likely to report discussing with peers and parents and have intention to remain abstinent from sex than is obtainable among the pupils in the control schools and in the total sample.

Table 3 Number and percentage distribution of pupils who scored above field average on knowledge of RH, STI, HIV, LBS and those who reported discussing HIV/AIDS issues with parents, peers or pledged abstinence among the program and control pupils

Knowledge	% Field Av. Score	Number and percentage of pupil who scored above field average		
		Program (N=709)	Control 1 N=606)	Control 2 (N=638)
RH	27.9	495 (69.8)	271(44.7)	328(51.4)
STI	16.7	398(56.1)	302(49.8)	208(32.6)
HIV/AIDS	63.5	517(72.9)	385(63.5)	204(32.0)
LS	43.2	344(48.5)	217(35.8)	140(21.9)
	Number of pupils who responded yes to discussion with parents, peer or abstinence from sex			
Parents	Yes (40.2)	542(76.4)	409(67.5)	215(33.7)
Peers	Yes (59.7)	400(56.4)	244(40.3)	141(22.1)
Preferred abstinence	Yes (53.2)	465(65.6)	345(56.9)	229(35.9)

(% is in parenthesis)

The knowledge of the pupils were generally poor on three of the items measured in this study; RH (27.9%), STI (16.7), and LBS (43.2%) but generally higher on HIV/AIDS (63.5%). While HIV awareness is high (92%) among the pupils (not shown) composite knowledge which include; prevention, mode of transmission and stigma still needed some improvement.

In the program Schools about 70% of the pupils scored above the field average on knowledge of RH compared to 44.7% among the pupils in control Schools 1 and 51.4% among the pupils in control Schools 2. In the case of knowledge of STI 56.1% of the program pupils scored above the field average of 16.7% as against 49.8 among pupils in control Schools 1 and 32.6% in control Schools 2. Most of the pupils who scored above the field average of 63.5% on Knowledge of HIV/AIDS were from the program schools (72.9%) and control schools 1 (63.5%) and few were from the control schools 2 (32.0%). Those who recorded above average on knowledge of life skills (LS) were 48.5% in the program schools, 35.8% in the control Schools 1 and 21.9% in the control Schools 2.

In the second compartment of table 3 the proportion of pupils who reported a discussion of HIV/AIDS issues with parents, peer and or who said they would abstain from sex until marriage were 40.2%, 59.7% and 53.2% in that order. In the same way pupils from the program schools were more likely to be categorized as expressing these preferences than pupils in the control schools. Among those who reported discussion with parent (40.2%) majority were from program schools (76.4%) as against 67.5% in control Schools 1 and 33.7% in control Schools 2. Those who discussed with peers (59.7%) were mostly from program schools (56.4%) and control Schools 1 (40.3%) and considerably smaller (22.1%) from the control schools 2. Those who preferred abstinence till marriage (53.2%) were mostly from program schools (65.9%) and control schools 1 (56.9%) as against 35.9% among those from control schools 2.

MULTIVARIATE ANALYSIS

According to Table 1, primary school pupils come from diverse background characteristics. These confounding factors were controlled for in multivariate analysis predicting that program pupils are significantly more likely to discuss HIV/AIDS issues with parents or guardians than other pupils. And that they are more likely to be categorized to score above field average on knowledge of reproductive health (RH), sexually transmitted infection (STI), HIV/AIDS, life building skills (LBS) than other pupils. Each model was estimated in series of three steps. In the first step odds ratios were calculated for program and control schools, followed by the introduction of demographic and social economic characteristics of respondents such as age, sex, living arrangement, religion and locality status and the school characteristics (e.g. type of school, and class of the pupils) were included thereafter. There was no specific assumption made that this order introduction of the variables will affect the outcome of the model.

After controlling for these background and contextual factors, logistic regression analysis revealed that pupils in the program schools were about 5 times (Odds Ratio [O.R.] = 4.76) more likely than those in the control schools 2 (without trained teachers, FLHE curriculum and storybooks) to discuss family life and HIV/AIDS issues with parents or guardians. The pupils in the intervention schools were also two to four times more likely to score above average on knowledge of reproductive health (OR 2.2), STI (OR=2.31), HIV/AIDS (OR=3.93) and life building skills (OR=3.10) than pupils in the control Schools 2 (see Table 4).

In control schools 2 where the teachers were trained, provided with FLHE curriculum but without the storybooks, the odds ratio that primary pupils will discuss HIV/AIDS issues with parents or guardian than those in control schools 2 was 2.57. Pupils in this category were less likely to be categorized as scoring above average on knowledge of reproductive health (OR=0.65), more likely than pupils in control schools 2 to have above average knowledge of STI (OR=1.74), HIV/AIDS (OR=2.2) and life building skills (OR=1.68). Provision of the storybooks remained consistently a value added to knowledge among the primary schools.

In model 1 after controlling for all the variable in the equation exposure to the program remained a significant factor in the likelihood that a primary school pupil will discuss HIV/AIDS issues with her/his parents or guardians. Female pupils (OR=1.39), those living with both parents (OR=1.74), those in public schools (OR=1.72) and those in primary 4 (OR=3.90) were significantly more likely to report discussing HIV/AIDS issues with parents than others. Children who live with other adults who are not their parents were less likely to report discussion of HIV/AIDS with parents or guardians (OR= 0.64) than other pupils.

In model 2 exposure to the program remained significant predictor of the likelihood that a primary school pupils will score above average knowledge on reproductive health than other pupils after controlling for background social and economic characteristics. Female pupils, those living with both parents and those who discuss HIV/AIDS issues with parents in the last one month were significantly more likely to have higher knowledge of reproductive health than other pupils. In model 3, exposure to the program contributed significantly to the likelihood of scoring above average on knowledge of sexually transmitted infection after controlling for all the background variables. Other variables that contributed significantly to the likelihood that a primary school pupil will score above the project average on knowledge of STI include; living with both parents, discussing HIV/AIDS issues with parents/guardians in the last one month and attainment of higher class in primary school.

Table 4: Odds ratios that primary school pupils will discuss HIV/AIDS issues with parents or guardians, score above average on knowledge of reproductive health, STI, HIV/AIDS and life building skills in Plateau State 2007.

Variables in the Equation		Model 1: Discuss HIV with parent	Model 2: Knowledge of RH	Model 3: Knowledge of STI	Model 4: Knowledge of HIV/AIDS	Model 5: Knowledge of LBS
		Exp(B)	**Exp(B)**	**Exp(B)**	**Exp(B)**	**Exp(B)**
SCHOOL STATUS	**Program**	4.764***	2.151***	2.304***	3.928***	3.047***
	Control 1	2.566***	.649**	1.747***	2.126***	1.682***
	Control 2 (r)	1.00	1.00	1.00	1.00	1.00
AGE GROUP	**<= 9yrs**	.620	1.059	.843	1.767	1.047
	10-11 yrs (r)	1.00	1.00	1.00	1.00	1.00
	12+	1.046	.562	.310**	1.260	.132**
SEX	**Female**	1.390**	2.012***	.900	.807*	1.177
	Male (r)	1.00	1.00	1.00	1.00	1.00
LIVING ARRANGEMENT	**Both parents**	1.736**	1.918**	1.468**	1.197	1.139
	Mother/father (r)	1.00	1.00	1.00	1.00	1.00
	others	.641**	.766	.857	.974	.776
RELIGION	**Christianity**	1.171	.833	.726*	.750	.839
	Others **(r)**	1.00	1.00	1.00	1.00	1.00
LOCALITY STATUS	**Urban**	.916	1.216	1.018	2.009***	.927
	Rural (r)	1.00	1.00	1.00	1.00	1.00
DISCUSS HIV/AIDS WITH PARENTS	**Yes**	NA	1.685***	1.968***	6.420***	1.630***
	No (r)	NA	1.00	1.00	1.00	1.00
TYPE OF SCHOOL	**Public**	1.272*	1.180	.961	.448***	.861
	private	1.00	1.00	1.00	1.00	1.00
CURRENT CLASS	**Pry 4**	3.903**	.512	.654	.505	.556
	Pry 5	1.00	1.00	1.00	1.00	1.00
	Pry 6	1.086	1.822	4.481**	.402	8.444**
	Constant	.267	.847	.496	.852	.337

Significant at *P < 0.05, **P<0.01, ***P< 0.001

Exposure to the program significantly influence the likelihood that a primary school pupil will score above average on the knowledge on HIV/AIDS in primary schools in Plateau State controlling for all the variables in the model. It was also found that other background characteristics of the pupils like; urban residence and discussion with parents on HIV/AIDS issues in the last one month (OR=6.42)

significantly predict the likelihood that primary school pupils will have improved knowledge of HIV/AIDS.

Finally, in model 5 knowledge of life building skills was predicted from exposure to the program controlling for selected background characteristics. Pupils exposed to the program were more than three times more likely to have improved knowledge of life building skills. Other factors that contributed to improve knowledge of LBS among the pupils include discussion with parents about HIV/AIDS issue and being in higher class in primary school.

THE PROCESS IMPACT OF THE PROJECT: THE CASE OF *BINTA THE MOST BEAUTIFUL MAIDEN* AND THE *FOREST OF TEARS*

Thirty pupils who have read two of the storybooks in the project schools, participated in an in-depth interview to express their views and general impressions concerning the books. Their responses on two of the storybooks are reported in this section.

A). Binta the Most Beautiful Maiden

The story of ***Binta the Most Beautiful Maiden*** illustrated the hazard of growing up that young people are exposed to in their social environment. In a very simple but familiar manner, it describes the behavior that could facilitate premarital sex. It vividly described the dangers associated with premarital sex like; unwanted pregnancies, diseases including the risk of contracting HIV and AIDS. The story provided some lessons about self-esteem, Relationship and assertiveness. About half of the pupils interviewed reported that they learned about poor self-esteem as a factor of vulnerability, more than one quarter mentioned issue of HIV transmission and how it can be prevented and the dangers of premarital sex in the era of HIV and AIDS. One quarter of the pupils thought the important message of the story was on care and support.

Impressionistic Parts

When asked to mention the part of the story that the pupils enjoyed most, 23 mentioned the part where Binta's friends shared in her pain and the support given to Binta by her parents during the period of her sickness. Other parts that the pupils enjoyed were the part where Boka educated Binta's friends on the HIV/AIDS disease that killed her and how the infection can be avoided. Many pupils feel that this part was very informative and educative.

Recognizable Characters

Many of the pupils could name the main characters (Binta, Boka and Leopard). More than 28 pupils could recall the names of two characters without prompting. Most pupils identified with the positive role models of Boka the medicine while denouncing the negative role model of the leopard and Binta.

Perceptions on Important Messages

In accordance with the objectives of this story, almost all the pupils who read the book saw the need for abstinence from sex before marriage for all young people, the need for good self-esteem, that HIV can be contracted through premarital sex by young people with low self esteem as its most important messages. Majority of the pupils indicated that the story taught them the need for abstinence and how HIV can be contracted through premarital sex. Other messages about poor self-esteem and vulnerability were also noted. Some of the pupils summarized the lesson learnt this way:

I learnt that I should not engage in bad behavior (premarital sex)… (primary six pupil)

I learn about how HIV and AIDS can be contracted and how it can be avoided. (primary six)

New Information Received

All the pupils stated that they learned something new. The most important new message was on how HIV can not be transmitted, how poor self-esteem could lead to vulnerability and premarital sex among young people.

b). The Forest of Tears

The story was set in the land of animals where there was a cruel custom that came to an end with the tortoise's act of love, courage and honesty. The 'Forest of Tears' can be said to have provided lesson to the pupils about empathy, assertiveness and caring. The book is designed to teach pupils how to empathize and care for people living with HIV and AIDS (PLWHA).

Impressionistic Parts

When asked to mention the part of the story that the pupils enjoyed the most, 75% mentioned the part where the young tortoise told the mother that he could not leave her in the forest of tears and that whatever it cost, he will stand by her in spite of her sickness and what the custom prescribed. Other parts that the pupils enjoyed was when the young tortoise unraveled the king's riddles.

Recognizable Characters

All the pupils 100% could recall the young tortoise, mother tortoise, and the king without prompting. All the pupils reported that they identified with the positive role model of the young tortoise.

Perceptions on Important Messages

In line with the objective of this story, almost all the pupils who read the book saw empathy, love, care and support as the most important messages and ingredient for caring for PLWHA. More than 26 pupils indicated that the story taught them how to be empathetic with people who are sick particularly those living with HIV and AIDS. These important perception is succinctly summarized as follows:

> *"I have always thought I will run away if I see people living with HIV and AIDS …but now I can help them…because of what I know through, The Forest of Tears". (Female pupil)*

New Information Received

The most important new message according to the pupils was on how to care for people living with HIV and AIDS and how not to stigmatize them.

The stories are generally accepted by the pupils, the teachers and the parents in the five local government areas where the project is being implemented. Other notable impact of the storybooks include: At the end of the school session in July 2007 over 10,000 copies of the storybooks have been published reaching an estimated 60,000 pupils and their families with complete and correct information about HIV and AIDS. Over 66 primary schools have requested for copies of the storybooks and inclusion in the project. Centre for Children in Crisis (CENCHIC) receives an average of 4 requests for the books from parents weekly. The project left substantive materials-the storybooks in the hands of the pupils. The implication is that the real impact of the project may not be now but many years to come. Like every folktale, the books left lasting impression in the vivid mind of these young people. The storybooks are already adopted as supplementary readers in the 15 intervention schools and actively being awaited in the 30 control schools when arrangement is completed. Primary school pupils easily identify with the animal stories, the colorful pictures, the bold lettering and the key issues of HIV and AIDS presented in the stories. Many pupils said that they love to read the stories, looking at the picture and that the bold letters make reading fascinating

DISCUSSION

In a society with generalized epidemic like Nigeria there is the need to start HIV/AIDS education early. Such education must be made attractive to retain the attention of the pupils so that they can identify with the issues and participate now and in the future in HIV/AIDS prevention and impact mitigation in their community. The objective of the evaluation study was to determine improvement in the reproductive health, HIV/AIDS, STIS and life building skills after primary school pupils were exposed to

intervention designed to use folk stories to teach HIV/AIDS curriculum education in Nigeria. This was done by comparing knowledge of pupils in program and control schools based on these issues. Exposure to the project was an important explanatory variable in the observed difference in the knowledge of reproductive health, STI , HIV/AIDS and life skills among primary school pupils in Plateau State.

It was also responsible for the likelihood that a primary school pupils will discuss HIV/AIDS issue with their parents or guardians. The importance of parent-child communication on HIV/AIDS issues was demonstrated in the finding that pupils who reported discussing with parents were consistently and significantly more likely to be categorized to have higher knowledge of reproductive health, STI, HIV/AIDS and life building skills than those who do not discuss HIV/AIDS issues with their parents or guardians. The finding that pupils in lower primary class are more likely than those in upper class to discuss with parents further underscore the need to start HIV/AIDS education early when parents can participate in the sexuality education of their children which should naturally begin at home. Pupils in upper classes who are older may prefer their peers, indicating the need to train these peers to meet the information needs of this category of pupils (Phelps et. al., 1994)

The finding that parent-child discussion on sexuality issues is critical to all the improved knowledge recorded in the study underscores the role of parents in the education of their children. To this end, parents should be encouraged through PTAs to be involved in the sexuality education of their wards particularly at the primary school level when they can still be molded. In most cases parents have been found to be ill prepared for this task (Kirby, 1995; MacLachlan, 1997). The stories used in the CENCHIC project were collected based on extensive research and has been shown to be effective in increasing HIV and AIDS knowledge, and promoting pupils-parents communication. The assumption is that using folktales to provide life skills based HIV and AIDS education in the community will increase parents' involvement in the sexuality education of their children. Folk story creates teachable moments critical for parents to initiate sensitive topics on behavior with their children. And HIV and AIDS education at the primary school level that involves parents will be more acceptable in the community than the ones that do not.

HIV and AIDS education that involve stories will increase pupils' interest and participation and improve their knowledge before they make critical decisions later in life. The knowledge of the children on reproductive health, life building skills, HIV and AIDS improved with their class and age thus, before children complete primary school they would acquire correct and complete information and identify with reproductive health and HIV/AIDS issues in the community. However, for this project HIV/AIDS knowledge did not improve as rapidly as was envisaged even among pupils in the program schools particularly in the areas like sexually transmitted infection, reproductive health, and life skills. Teachers probably over concentrated on teaching of HIV/AIDS because of the attention and demand for information on the disease in the community. The storybooks can not replace the more technical books on the subject. This are required to complement this effort and provide complete and accurate information on family life and HIV/AIDS education.

Many pupils now in primary schools particularly in northern Nigeria may not proceed to secondary schools due to early marriage and entry into the labor market (Osagbemi et al 2002). To many of these children, the primary education represents the only opportunity to learn about reproductive health, life skills and HIV and AIDS in a formal and systematic way. Successful primary life skills based HIV/AIDS education is likely to require that these programmatic efforts be continued, scaled up, done in conjunction with other interventions at the primary school level in Nigeria.

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		HUMAN DEVELOPMENT & PERSONAL SKILLS										HIV INFECTION				RELATIONSHIP, SOCIETY AND CULTURE									
S/N0	Titles/Topics	Puberty	Body Image	Values	Self Esteem	Goal Setting	Decision Making	Communication	Assertiveness	Negotiation	Finding Help	STIs	STIs & HIV/AIDS	Abstinence	Body Abuse	Families	Friendship	Love	Relationship within the Larger Society	Humanity and Society	Gender Roles	Humanity and Law	Humanity and Religion	Humanity and Diversity	Humanity and Arts	Humanity and the Media
	G R A D E 4																									
1	**The Forest of Tears**			•			•			•		•	•		•	•								•		
2	**The Little Kabewa**			•	•											•					•		•	•		
3	**The King and the Ring**			•	•		•									•				•	•	•	•	•		
4	**The Empty Pot**			•	•		•									•		•						•		
5	**The Talking Yam**			•							•														•	
6	**The Five Wise Sayings**			•	•	•	•												•		•		•	•		
7	**The Courageous Peter**			•	•	•	•											•								
8	**Naughty Yapi**			•	•											•			•							
9	**The Fat Goat**		•	•													•		•			•				
10	**The Journey to Freedom**						•	•		•	•	•	•	•					•								
	G R A D E 5																									
11	**The Wicked Slave**											•	•													
12	**Bitrus and Bala**			•			•										•	•								
13	**The Treasure**						•						•			•										
14	**Titi and Tutu**											•				•										
15	**The Mouse Trap**						•	•											•							

16	**The Careless Mother**						•					•	•			•										
17	**Daddy's Proverb**			•	•		•		•								•									
18	**Too Too Close**	•	•				•	•				•		•		•	•									
19	**Pai and Kai**			•			•		•			•				•			•	•						
20	**The Workshop**			•			•					•	•	•			•									•
G R A D E 6																										
21	**The Choice is Yours**			•	•		•		•										•	•						
22	**The Growing Years**	•	•													•										
23	**Binta the Most Beautiful Maiden**			•			•	•			•	•	•	•		•	•									
24	**The Hunter and the Deer**						•					•	•		•	•										
25	**The Bad Thing**	•	•				•	•				•	•	•		•	•		•	•	•					
26	**The Crane and the Crab**						•				•	•	•	•					•							
27	**Saminu and Talatu**			•	•				•	•					•											
28	**Maikirki**									•			•		•			•								
29	**Uyi and the Time Thread**			•		•	•																			
30	**The Sarki and the Kite**			•													•	•								
31	**Book/topic Summary***	**3**	**4**	**18**	**9**	**3**	**20**	**5**	**4**	**4**	**4**	**12**	**11**	**6**	**4**	**14**	**8**	**5**	**9**	**4**	**4**	**2**	**3**	**5**	**1**	**1**

QIN: _____

CENCHIC/Pro/-2006/001

CENTRE FOR CHILDREN IN CRISIS (CENCHIC)
(COMMUNITY BASED LIFE SKILLS HIV/AIDS PROJECT)

Evaluation Survey - Knowledge, Attitudes & Skills (KAS)

INTERVIEW SCHEDULE FOR PUPILS

A. IDENTIFICATION		*NAME*	**CODE**
A.1	**LGA**		
A.2	**Locality Name**		
A.3	**Sector**	**(Urban=1; Rural=2)**	
A.4	**Sample School No**		
A.5	**School Status**	**(Intervention, Control=1, Control 2)**	
A.6	**School Ownership**	**(Public =1; Private=2)**	

A. INTRODUCTION

Greetings:

My name is ---------- I am working with the CENCHIC Evaluation Team and we are conducting a survey to evaluate the impact of Community based life skills based HIV/AIDS Education Project. Your school has been selected as a sample for this study and you are one of the respondents. The interview will focus on your knowledge, attitude and skills concerning reproductive health and HIV prevention. The interview will not take much of your time. This information will help CENCHIC and its partners to improve on the quality of the project implementation.

B. FACT ABOUT THE SURVEY:

1. The questionnaire consists of 2 sections.
2. Information you supply is confidential and your answers will NOT be associated with your person or name and no one at your school or in your family will ever see your answers.
3. At any point when you feel you do not want to continue with the interview feel free to say so.
4. If you feel uncomfortable answering any question, feel free to decline ask me for further clarification.
5. Giving honest information will help us improve on the project

C. Inform Consent

I have understood that the objective of the study is to evaluate CENCHIC life skills based HIV/AIDS education project in schools. As a participant in the study I am told that it will be appreciated if I could provide honest and sincere information about my experience as a participant in the study.

I have read the above information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction. I accepted to participate this study and I understand that I have the right to withdraw from the study anytime even though the researchers have taken permission from the school authority to allow me participate without fear that I may be victimized in anyway.

C. CERTIFICATE OF CONSENT:

Note: The interviewer should ask the pupil to repeat in their own word their understanding of the study. Where clarification is needed it should be provided before the interview begins.

ASK FROM THE PUPIL

001. *"May I proceed with the interview?"* [___]

Yes --------- 1

No ---------- 2 → Q605

002. Time now: _____ [24-Hour Format] [___|___|___|___]

Hour Minutes

SECTION 1: DEMOGRAPHIC INFORMATION

QN	QUESTIONS & FILTERS	RESPONSE OPTIONS	Skip to	Entry Code (Leave Blank)
01	Sex of respondent: **[OBSERVE, DO NOT ASK]**	Male ---------- 1 Female---------- -2		
02	In what month and year were you born?	a. Month _____ (Don't know month = 88) b. Year _____ (Don't know year = 88)		[___|___] [___|___ |___|___]
03	How old were you as at your last birthday? **IF NECESSARY** **[USE Q02 TO CORRECT Q03]**	Age in completed years: _____		[___|___]
04	Marital status	Currently Married ----------1 Single (Never married) -------- 2 Others (specify) _____ 9		[___]
05	What class are you in?	Pry 4 ---------- 1 Pry 5 ---------- 2 Pry 6 ---------- 3		[___]

06	What is your religion?	Christian---------- 1 Islam---------- 2 Traditional ---------- 3 No religion ----------4 Others (specify) _____ 9		[___]
07	Whom do you live with?	Mother only---------- 1 Father only ---------- 2 Relatives (Uncle or Auntie)--- 3 Both Parents ---------- 4 Husband/Wife ---------- 5 Others (specify) _____ 9		[___]
08	Who bears the cost of your schooling (fees and/or uniforms, transport, books, levies)?	Parent/Guardian ----------1 Self ---------- 2 Others (specify) _____ 9		[___]

SECTION 2:

			Preferred	
	KNOWLEDGE ON REPRODUCTIVE HEALTH		No	Yes
1	What signs would you observe to know that a girl has reached puberty (mature)?	Breasts Development		√
		Development of the hips		√
		Growth of pubic hair & hair under the armpits		√
		Start of menstruation		√
		Tendency to be attracted to the opposite sex		√
		Tendency to be curious about sex		√
	What signs would you observe to know that a boy has reached puberty (mature)?	Muscle Development		√
		Growth of beards, pubic hair & under the armpits		√
		Ejaculation		√
		Development of testicles		√
		Tendency to be attracted to the opposite sex		√
		Tendency to be curious about sex		√
		Deepening of the voice		√
2	When a girl has reached puberty (matures), she begins to experience bleeding from the private part once in a month			√
3	When a girl begins her first menstruation/period, can she get pregnant?			√
4	What do you think are the likely consequences of pregnancy at a very young age?			√
5	What do you think are the likely consequences of pregnancy at a very young age?	Vesico Vaginal Fistula (VVF)		√
		Premature delivery		√
		Spontaneous abortion (miscarriage)		√
		Death of the mother		√
		Death of the new-born		√
	KNOWLEDGE ON SEXUALLY TRANSMITTED INFECTION			
6	Do you know what Sexually Transmitted Infections (STIs) or diseases are?			√
7	Which of the following are STIs?	Chlamydia		√
		Gonorrhoea		√
		Syphilis		√
		Genital Warts		√
		HIV		√
		Elephantiasis	√	

8	What are some of the common signs and symptoms of sexually transmitted infections?	Genital discharge		√
		Bleeding		√
		Genital itching		√
		Lower abdominal pain		√
		Painful urination		√
9	Do you know where a person should go for treatment if s/he has an STI?			√
10	Where should a person having STI go for counseling or treatment?	Public health office	√	
		Hospital		√
		NGOs/CBOs	√	
		Traditional healer	√	
		Chemist/pharmacy	√	
		Religious Home	√	
		Friends	√	
		Relatives	√	
	KNOWLEDGE ON HIV/AIDS			
11	Have you heard of HIV/AIDS?			√
12	Is HIV different from AIDS?			√
13	How can a person get infected by HIV?	Hugging and shaking hands	√	
		Unprotected sex		√
		Mosquito bites	√	
		Through blood transfusion		√
		Through witchcraft	√	
		Sharing contaminated sharp objects (blades, needles)		√
		Sharing eating utensils	√	
		Sharing toilets	√	
		From mother to child		√
14	Can you tell if someone has HIV (NOT AIDS) by just looking at him/her?		√	
15	One can find out her or his HIV status by taking a blood test?			√
16	How can people protect themselves from getting HIV	Abstain from having sex		√
		Stay faithful to spouse		√
		Use condoms		√
		Avoid sharing sharp objects or piercing instruments		√
		Avoid blood contact		√
		Using traditional herbs or charms	√	
		Stick to one sexual partners		√
17	What are the early signs and symptoms of AIDS?	Weight loss		√
		Skin rash		√
		Chronic fever		√
		Diarrhoea		√
		Persistent Coughing		√
		Sores on the lips that don't heal		√
18	If you knew a fellow pupil was HIV positive, would you share your eating utensils with this person?			√
19	If you knew a fellow pupil was HIV positive, would you share work tools (pen, cutlasses, text books) with her or him?			√
20	If you knew a fellow pupil was HIV positive, would you take care of that person?			√
21	A pupil living with HIV should be forced to stop schooling		√	
22	A pupil living with shouldn't be allowed to mix with other pupils		√	
23	A pupil living with HIV should be denied admission to another school		√	
24	A pupil living with HIV should be treated normally			√
	KNOWLEDGE ON LIFE SKILLS			
25	Have you ever heard	Assertiveness		√

	about the following life skills	Refusal		√
		Communication		√
		Goal Setting		√
		Self Esteem		√
		Negotiation		√
		Relationships		√
26	Would you allow anyone to touch any part of your body even if you don't like it?		√	
27	If a person touched your body anyhow would you be able to report to somebody?			√
28	If an older relative (parent, uncle, auntie, sibling) touched your body anyhow would you report to somebody?			√
	INTENTION, BEHAVIOR AND PRACTICES			
29	In the last one month have you discuss HIV/AIDS issues with your friends or peers			√
30	In the last one month have you discuss HIV/AIDS issues with your parents or guardian			√
31	Would you rather abstained from sex until you are married			√

FOR THE INTERVIEWER

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i. Have you said → "Thank you very much. We are very grateful for availing us your time" ?

No ---------- 1 → SAY IT NOW [___]
Yes ---------- 2

ii.Time Ended: _____ [24-Hour Format] [___|___|___|___]

iii.Time Start: _____ **[COPY FROM 002]** [___|___|___|___]

iv.Date of Interview: ____/____/2006 [___|___|___|___|_2_|_0_|_0_|_6_]

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v. **INTERVIEW RESULT:**

Completed ---------- 1
Refused ---------- 2 [___]
Partially completed ------ 3

Interviewer: _____ [___|___]
Name

Field Editor: _____ [___|___]
Name

Team Leader: _____ [___|___]