

Original Research Article

Sexual Health Communication Strategies and HIV/AIDS Awareness among Students in Teachers' Colleges in Central Uganda

Abstract

Background: There are about 34 million Ugandans (UBOS 2016) of which 7% adults are living with HIV/AIDS. Although the prevalence of HIV/AIDS among the youth is estimated at 3.7% relatively lower than in adults, about 60% of the Ugandans are youth hence more than 50% of Uganda's total population is at risk of HIV/AIDS infection. Therefore creating awareness among the youth on HIV/AIDS is the key to reducing its spread. Central to awareness creation is ensuring that knowledge on HIV/AIDS is passed through appropriate sexual health communication strategies.

Methods of awareness are implemented to the built concept in the prevention of AIDS, with short street dramas, songs and distributing pamphlets at various organizations etc. Teachers, the counsellors of the society have also taken initiative in generating AIDS-related awareness. Despite the existence of provisions for communicating HIV/AIDS, still, there is limited literature found on sexual health communication strategies used by PTCs and awareness of HIV/AIDS among students, teachers, and trainees in Uganda. Therefore this Cross-sectional survey study was performed at Primary teachers colleges in central Uganda in 2014 with aim of establishing the relationship between three sexual health communication strategies namely: guidance and counseling, school-based talk shows on stigma and discrimination of children infected or affected by HIV/AIDS and integration of HIV/AIDS in teaching and awareness. For the study 216 students, teachers, trainees were selected along with 6 principals and 12 tutors. The semi-structured questionnaire was completed. In conclusion, it has been found that all of them are well aware regarding the AIDS preventive measures but fail to conceptualize regarding transmitting methods and symptoms.

Key words

Sexual health communication strategies, guidance, talk shows, integration, student-teacher trainees, teachers colleges, HIV/AIDS.

1. INTRODUCTION

Statistics show that more than 35 million people live with Human immunodeficiency virus infection and acquired immune deficiency syndrome (HIV/AIDS) in the world and more than half of these are in Africa [1]. Although Uganda had attained considerable success in the fight against HIV/AIDS in the 1990s (Stoneburner and Low-Beer 2004) available information shows that of the 34 million Ugandans, about 7% adults are living with HIV/AIDS [2] with infection rate highest

37 among married couples. The prevalence of HIV/AIDS among the youth is estimated at 3.7% [2],
38 relatively lower than in adults. However, about 60% of the Ugandans are youth [3] implying that
39 more than 50% of the Ugandan total population is at risk of HIV/AIDS infection.

40 Creating awareness among the youth on HIV/AIDS is key to reducing its spread. Central to
41 awareness creation is ensuring that knowledge on HIV/AIDS is passed through appropriate
42 sexual health communication strategies.

43 There are many sexual health communication strategies that have been used to communicate
44 HIV/AIDS messages [4]. At Universities, sexual health communication strategies such as play
45 and drama ([5], [6]), Voluntary **Counselling** and Testing (VCTs) [7, 8] have been used to raise
46 awareness on HIV/AIDS. A study in South Africa revealed sharing information among peers and
47 colleagues created more awareness and this was attributed to peers being able to understand
48 and identify with each other [9]. Another study showed that 'ABC' communication strategy was
49 used for University students in KwaZulu- Natal with varying degrees of success [10].

50 At the lower level of education, primary teachers are critical messengers of HIV/AIDS messages
51 to learners. The teachers in primary schools have the potential to reach larger numbers of
52 learners due to Universal Primary Education (UPE) program and hence a greater multiplier effect.
53 Efforts to involve already practicing primary teachers in HIV/AIDS fight has been through in-
54 service training mainly **in the form** of seminars and workshops. This approach may not
55 adequately equip teachers with sufficient information and capacity to create awareness about
56 HIV/AIDS for their learners. For effective HIV/AIDS education at primary schools, teachers need
57 to be adequately informed and trained.

58 In this respect, primary Teachers' Colleges (PTCs), as training institutions have a significant role
59 to play in raising awareness on HIV/AIDS among student teacher trainees and ultimately build
60 their capacity to disseminate HIV/AIDS among their learners upon completion of the training. The
61 student teacher trainees need to be equipped with correct information on HIV/AIDS which
62 eventually builds their confidence to talk about HIV/AIDS to learners. In order for the training

63 colleges to deliver on this, sexual health communication strategies used at the college level are
64 central.

65 Available literature suggests there is limited information on sexual health communication
66 strategies on HIV/AIDS used in primary teachers colleges and awareness among the student
67 teacher trainees [4,11,12] Onyango (2009) in Kenya, investigated the preparedness of primary
68 student teacher trainees to teach about HIV/AIDS in their classrooms after completion. The
69 findings showed that student-teacher trainees were not confident to discuss HIV/AIDS in their
70 classrooms largely because of inadequate training while at the college. Knowledge of HIV/AIDS
71 was through home science lectures, guidance and counseling and peers.

72 In Uganda, PTCs were privileged to be among pioneer organizations in training primary school
73 student teacher trainees in sexual health communication strategies. Since 1996, Government of
74 Uganda has supported the ABC sexual health communication strategy to prevent the spread of
75 HIV/AIDS. Uganda was the first country in East Africa to include HIV/AIDS education in the PTC
76 and the primary school curriculum. In 2001, the President of Uganda Yoweri Kaguta Museveni
77 called for a communication strategy named Presidential Initiative for AIDS communication to the
78 youth (PIASCY). In 2003, the Ministry of Education and Sports (MoES) in collaboration with its
79 partners and line ministries launched two resource books called PIASCY Teachers' manual and
80 PIASCY Hand book [13]. The books were to assist the tutors, student-teacher trainees, primary
81 school head teachers and teachers to communicate to children about sexual health. It suggested
82 ten Sexual Health Communication Strategies namely, (i) PIASCY assemblies (ii) School club
83 meetings (iii) PIASCY oriented debates (iv) Action oriented meetings for children on safety
84 friendship (v) PIASCY drama competition and skits (vi) Action oriented meetings on risky
85 situations for children and defilement (vii) School talk shows on sexual abuse and legal issues,
86 abstinence, and stigma (viii) Guidance and counselling (ix) Artwork for talking compound and (x)
87 Action oriented meetings with care givers on positive parenting.

88 Despite the existence of provisions for communicating HIV/AIDS, there is limited literature on
89 sexual health communication strategies used in PTCs and awareness of HIV/AIDS among

90 student teachers trainees in Uganda. Hence this study was aimed at establishing a relationship
91 between three sexual health communication strategies namely: guidance and counseling, school-
92 based talk shows on stigma and discrimination of children infected or affected by HIV/AIDS and
93 integration of HIV/AIDS in teaching and awareness.

94 The study was guided by the following questions; what is the relationship between child guidance
95 and counseling, school-based talk shows and integration of HIV/AIDS in teaching as sexual
96 health communication strategies and awareness of HIV/AIDS among student teacher trainees?

97 2. METHODOLOGY

98 A cross-sectional survey design was used in this study. Data was collected from six PTCs
99 randomly selected in central Uganda. The respondents included all principals, one science tutor
100 and one tutor in charge of guidance and counseling and 36 second-year student teacher trainees
101 from each of the six PTCs making a total of 234 respondents. The principals and two tutors from
102 each college were purposively selected. This is because they were expected to be more
103 knowledgeable and would provide relevant information needed for the study. Each PTC has two
104 science tutors and one tutor for guidance and counseling. Selecting one science tutor gave 50%
105 representation per college and each guidance and counseling tutor had to participate in the study.
106 Systematic random sampling was used to select year two student teachers in each of the six
107 PTCs. Year two class was picked purposively because these student-teacher trainees are at the
108 final stage of the training, hence have adequate information.
109 One face to face interview of about 30 minutes was conducted separately for the principals,
110 science and guidance and counseling tutors in each college by one member of the research
111 team.
112 Prior to the time of the research, letters were written to the colleges through the principals
113 requesting permission to conduct the research. A pre-tested Self-Administered Questionnaire
114 (SAQ) and interviews were the main data collection instruments.

115

116 The data from (SAQ) was edited, categorized, coded and entered into the computer and analyzed
117 using the statistical package for social sciences (SPSS). The dependent variables were HIV/AIDs
118 awareness and the independent variables were sexual health communication strategies.
119 Pearson's correlation coefficient was used to test relationships between sexual health
120 communication strategies and awareness. The awareness level was rated as 0 to 24 percent –
121 very low, 25 to 49 percent - low, 50 to 69 percent- moderate (Not high not low), 70 to 79 percent –
122 high and 80 to 100 percent- very high. The qualitative data generated from semi-structured open-
123 ended questionnaires and interviews were coded categorized, interpreted and analyzed under
124 themes.

125 Ethical considerations

126 In the study, ethical issues like names of participants, their responses plus their location were
127 handled anonymously. In addition, only willing respondents were interviewed.

128

129 3. RESULTS

130 The respondents consisted of six principals, 12 tutors and 216 teacher trainees from six PTCs
131 from central Uganda. Fifty percent of the principals had experience of more than 10 years of
132 service as principal. All the principals were in the age bracket of 40 years and above, while the
133 tutors were aged between 30-50 years. The student teacher trainees by gender were 93 males
134 and 123 females aged between 18-27 years.

135 High awareness level was only observed in the knowledge of prevention of HIV/AIDS through
136 correct and regular use of condoms. About three-quarters of the student teacher trainees (76.9%)
137 said that HIV/AIDS can be prevented by correct and regular use of condoms. Low awareness
138 level was recorded in transmission, signs and symptoms, treatment history and types of
139 HIV/AIDS. About 47.7% of the student teacher trainees knew that HIV/AIDS can be transmitted
140 from infected mother to her fetus (Table 1).

141 Table 1. Student teachers' knowledge of HIV/AIDS

Item	Disagree	Neutral	Agree
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	HIV is not the same as AIDS	117 (54.2%)	6 (2.8%)	93 (43%)
	HIV/AIDS is transmitted through insect bites	97 (44.9%)	9 (4.2%)	110 (51%)
	Signs and symptoms of HIV/AIDS do not appear during the window period	79 (36.5%)	44 (20.4%)	93(43.1%)
	HIV/AIDS cannot be transmitted from infected mother to the fetus	103 (47.7%)	8 (3.7%)	105(48.6)
	The first cases of HIV/AIDS in the world did not occur in 1987 in Rakai District in Uganda	99 (45.9%)	37 (17.1%)	80(37.1%)
	There are two major types of HIV/AIDS	118 (54.6%)	61 (28.2%)	37 (17%)
	HIV/AIDS can be prevented by correct and regular use of condoms	35 (16.2%)	15 (6.9%)	166(76.9)
	HIV/AIDS can't be treated and cured using antiretroviral drugs	92 (42.6%)	24 (11.1%)	100(46.3)
142	Majority of the student teacher trainees (82%) knew the meaning of guidance and counseling.			
143	From the interviews, all the six principals also accepted that their tutors have high knowledge of			
144	child guidance and counseling. Few student teacher trainees (10.2%) did not know the meaning			
145	of guidance and counseling. About sixty percent of the student teacher trainees reported that they			
146	were adequately trained in child guidance and counseling of pupils infected and affected by			
147	HIV/AIDS; while (27.8%) were not adequately trained in guiding and counseling pupils who are			
148	either infected by HIV/AIDS (Table 2).			
149				
150				

151 **Table 2: Communication strategies and student teachers' knowledge and training**

Item	Disagree	Neutral	Agree
Guidance and counseling			
I know the meaning of child guidance and counseling	22 (10.25%)	17 (7.9%)	177 (82%)
I have been adequately trained in guidance and counseling for children infected and affected by HIV/AIDS	60 (27.8%)	26 (12.0%)	130 (60.2%)
The college has adequate Reference books concerning guidance and counseling for children infected and affected by HIV/AIDS	57 (26.4%)	27 (12.5%)	132 (61.1%)
School-based talk shows			
I know what school based talk show is	69 (31.9%)	4 (21.3%)	101 (46.8%)
The college has adequately trained me in conducting school-based talk shows for	87 (40.3%)	17 (7.9%)	112 (51.9%)

	children stigmatized and discriminated upon due to HIV/AIDS			
	In the college, there is adequate reference books on stigma and discrimination of children infected and or affected by HIV/AIDS	67 (31%)	43 (19.9%)	106 (49.1%)
	Integration of HIV/AIDS into teaching			
	I know what is meant by integration of HIV/AIDS in teaching	52 (24.1%)	32 (14.8%)	132 (61.1%)
	Tutors have adequately trained me in how to integrate HIV/AIDS in all my plans and lessons	80 (37%)	38 (17.6%)	98 (45.4%)
	My tutors always conduct demonstration lessons on integration of HIV/AIDS in teaching	107 (49.5%)	16 (7.4%)	93 (43%)
152	Five (83.3%) of the principals interviewed also pointed out that their tutors have adequate			
153	knowledge and skills of guidance and counseling. Two of the tutors (16.7%) from the same			
154	college also mentioned that the student teacher trainees were helped only once with training in			
155	acquiring skills of guidance and counseling by an organization called UNITY. About sixty percent			
156	student teacher trainees reported that there were adequate reference books concerning guidance			
157	and counseling for children infected and affected by HIV/AIDS (Table 2).			
158	According to the twelve tutors interviewed, the reference books concerning guidance and			
159	counselling available in the colleges are: PIASCY hand book (P3-P4) and (P5-P7), Supporting			
160	Children in the Era of HIV/AIDS, PIASCY Readers Books 5,6, and 7, Child Guidance and child			
161	guidance and Counselling for Primary Schools (Tutors and Teachers Guide). However, they			
162	noted that the books were not adequate since a good number of them were sent to the			
163	Coordinating Centers (CCs). Slightly more than 50% of the student teacher trainees reported that			
164	tutors always conduct demonstration lessons on guidance and counseling of pupils infected and			
165	affected by HIV/AIDS (Table 2).			
166	The number of student-teacher trainees who got adequate training in conducting school-based			
167	talk shows for children stigmatized and discriminated upon due to HIV/AIDS was moderate			
168	(51.9%). Five of the principals (83.3%) interviewed also lamented that their tutors and student			

169 teacher trainees still lack skills and knowledge of conducting school-based talk shows on stigma
170 and discrimination of pupils affected and infected by HIV/AIDS.

171

172 Sixty percent of the student teacher trainees knew what is meant by integration of HIV/AIDS in
173 teaching. However, only 45% of the student teacher trainees were adequately trained on how to
174 integrate HIV/AIDS in their plans and lessons (Table 2). Five of the principals interviewed also
175 explained that their tutors and student teacher trainees still lack knowledge and skills of
176 integrating HIV/AIDS in their plans and lessons. Only one principal (16.7%) said that the tutors in
177 his college have adequate skills and knowledge of integrating HIV/AIDS in their plans and
178 lessons. All the principals (100%) interviewed agreed that their tutors need more training in
179 HIV/AIDS communication methods.

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185 Table 3. Correlation between communication strategies and student teachers' knowledge

		Awareness level
School-based talk	Pearson Correlation	0.131
	Sig.(2-tailed)	0.057
	N	216
Integration of HIV/AIDS into teaching	Pearson Correlation	0.44
	Sig.(2-tailed)	0.524
	N	216

	Pearson Correlation	0.131
Guidance and Counselling	Sig.(2-tailed)	0.054
	N	216

186 There was a weak positive relationship between communication strategy through school-based
 187 talk shows, integration of HIV/AIDS into teaching, guidance and counseling and HIV/AIDS
 188 awareness level amongst student teacher trainees in PTCs in Central Uganda (Table 3).

189 4. DISCUSSION

190 The study established that the level of HIV/AIDS awareness amongst student teachers in PTCs in
 191 Central Uganda is low in some key concepts of HIV/AIDS. Majority of the students did not have
 192 adequate knowledge about the difference between HIV and AIDS, transmission, origin, types,
 193 treatment and cure. The findings on limited knowledge on routes of transmission among student
 194 teacher trainees may explain the continued spread of HIV/AIDS in the population. According to
 195 the Uganda AIDS Commission, "There is now a return to widespread risky sexual behavior and
 196 low comprehensive knowledge of HIV prevention in the population as was at the very beginning
 197 of the epidemic" [14]. Statistics have shown that in Uganda, the infection rate is still high [2].
 198 Results from this study found in agreement with an earlier study on knowledge and attitudes
 199 towards HIV/AIDS amongst Iranian students which found that the knowledge level of HIV/AIDS
 200 among the students was low and there were many misconceptions about the routes of
 201 transmission of HIV/AIDS [15].

202

203 According to this study, the only highest awareness level was 76.9% and was registered in the
 204 area of prevention of HIV/AIDS by correct and regular use of condoms. This was in line with the
 205 finding of the study conducted by Selkuk et al in 2004 [16] involving 1800 Turkish students on
 206 knowledge and attitudes of students towards HIV/AIDS. Research has shown that consistent and
 207 correct use of male latex condoms can reduce the risk of STD transmission [16]. Almost half of
 208 the student teacher trainees 51% did not know that insects like mosquitoes do not transmit

209 HIV/AIDS. Similarly, another study had reported that 6 – 42 % of students have misconceptions
210 about transmission of HIV/AIDS. In this study, a misconception on the transmission of HIV/AIDS
211 implies that student-teacher trainees may not adequately teach pupils information about
212 transmission of HIV/AIDS.

213 Almost half of the student teacher trainees (48.6%) reported that HIV/AIDS cannot be transmitted
214 from infected mother to her fetus. A study by [17] showed that a fetus can become infected with
215 HIV through contact with the virus in their mother's blood, cervical and vaginal secretions, and
216 breast milk. Limited awareness of HIV/AIDS transmission among secondary school students has
217 also been reported in China. After a thirty-minute intervention lecture and videos on HIV/AIDS
218 transmission, about 60% of the students surveyed reported that only shaving, tattooing and ear
219 piercing with unsterilized instruments can spread AIDS [18]. The student teacher trainees who
220 participated in this study were in their final year of the training with only about six months left
221 before completion. Therefore there were limited chances for more increase in awareness of
222 HIV/AIDS transmission through sexual health communication strategies used by the PTCs.
223 However, there have been several documented cases in which HIV has been transmitted through
224 breastfeeding [19, 20, 21].

225 The study also established that the knowledge of student-teacher trainees on signs and
226 symptoms of HIV/AIDS and the window period was inadequate. Less than 50% of the student
227 teacher trainees did not know that the signs and symptoms of HIV/AIDS do not occur during the
228 window period. Limited knowledge of signs and symptoms of HIV/AIDS during window period
229 poses a big risk to the student teacher trainees because lack of signs and symptoms may be
230 interpreted as being free from HIV/AIDS. Inadequate awareness of signs and symptoms during
231 window period counter the fact that Uganda is one of the countries where the battle against
232 HIV/AIDS has been going on since 1986. It may also partly explain the reported increased spread
233 of HIV/AIDS among the population [2]. These findings are in agreement with another study of

234 undergraduate students in India which reported about 40% of the students had inadequate
235 information on signs and symptoms of HIV/AIDS [22].

236 The finding of this study indicates that about 40% of the student teacher trainees did not know
237 that HIV/AIDS has no cure and reported that antiretroviral drugs can cure HIV/AIDS. Similarly,
238 Iranian students believed that HIV/AIDS can be treated [15]. The implication is that many young
239 people may get complacent about the ABC strategy that government is pushing for thus
240 spreading the infection further.

241 Research has shown that HIV/AIDS, sexual and reproductive health education in schools if
242 taught adequately by trained educators using appropriate teaching methodologies, can have
243 positive health outcomes among pupils in both primary and secondary schools [22, 23].
244 Furthermore, teachers who were not adequately trained in HIV/AIDS have challenges in teaching
245 HIV/AIDS because it touches on sexuality – a topic barely explicitly discussed in most
246 communities [24].

247 Communication through school-based talk shows on stigma and discrimination due to HIV/AIDS
248 has no effect on HIV/AIDS awareness. Tutors and the student teacher trainees are not at the
249 same level while communication of sexual health messages [25]. This may have an impact on the
250 student-teacher trainees graduating from the colleges. This is because student teacher trainees
251 may also not communicate HIV/AIDS-related issues to their pupils through school-based talk
252 shows. Earlier findings from Kenya showed that tutors were not comfortable discussing HIV/AIDS
253 to student teacher trainees because tutors felt that student-teacher trainees were younger and
254 hence culturally it was not proper to discuss sexual issues openly with young people [24]. Despite
255 the effort to fight stigma, there is evidence that stigma still persists [26]. In schools, stigma
256 doesn't originate from pupils alone. Teachers are equally ill-prepared to deal with HIV-positive
257 students and the reaction of others.

258 Communication strategy through the integration of HIV/AIDS in teaching has no effect on
259 HIV/AIDS awareness in the PTCs. This could have been due to the fact that integration is done at

260 a minimal level hence no impact on awareness. The student teacher trainees reported that they
261 did not know how **to** include HIV/AIDS in their lesson plans. This points to how **the** integration is
262 being done. There is evidence that it is useful for a teacher in using the book titled “Supporting
263 Children in the Era of HIV/AIDS alongside the PIASCY Primary Teacher’s handbooks which
264 provide an overall summary of how student teacher trainees can integrate HIV/AIDS counseling
265 in their good practice to [27]. In the PTC studied, PIASCY books are not sufficient because most
266 of the books had been taken to Coordinating Centers. Integration of HIV/AIDS into PTC is
267 yielding results not different from integration efforts at secondary schools. For example, [28]
268 reported that although HIV/AIDS has been integrated into secondary schools curriculum through
269 extracurricular means, the integration is not effective enough.

270 Earlier on, it had been noted that “While people see higher education institutions as creating
271 knowledge through research and innovations, many of these institutions have not established
272 policies about integrating HIV/AIDS into the curriculum” (29). There is no evidence that “Teacher
273 training colleges or universities are adjusting pre-service and in-service models and **curriculum**
274 appropriately to integrate HIV education into their program”. This situation has not changed in
275 most teacher training colleges but tutors still need support to deal with HIV/AIDS curriculum
276 related issues [30, 31]. Recent research shows that the majority of tertiary institutions are either
277 revising their programmes to accommodate HIV/AIDS education or have ignored **it** altogether
278 [32]. Integration of HIV/AIDS education in the curricula of National Teachers Colleges (NTCs) and
279 universities in Uganda is still very limited [32]. Universities and teacher training colleges have
280 very few comprehensive HIV/AIDS programmes and generally, lack the commitment to
281 implement HIV education policy.

282

283 5. CONCLUSION

284 Awareness of student-teacher trainees from primary teachers colleges in central Uganda is high
285 in prevention but low in certain areas such as transmission, signs, treatment and its effects at the
286 different level of HIV/AIDS.

287 There was a non-significant positive relationship between sexual health communication strategies
288 through; guidance and counseling, talk shows and HIV/AIDS awareness. In other words, student
289 teachers appear to obtain their knowledge of HIV/AIDS from other sources other than these
290 strategies.

291 **Recommendations**

292 On the basis of the findings of this study, the following recommendations were suggested.

- 293 (i) The tutors and student teacher trainees need more training in how to conduct school-
294 based talk shows on stigma and discrimination of children infected and affected by
295 HIV/AIDS.
- 296 (ii) The tutors and student teacher trainees also need more training in how to integrate
297 HIV/AIDS in their teaching. This can be done through refresher courses and practice how
298 to integrate HIV/AIDS into lesson plans.

299 **Research**

- 300 • The attitudes of student-teacher trainees towards HIV/AIDS in PTCs in Central
301 Uganda.
- 302 • The effectiveness of other HIV/AIDS communication strategies for example meetings
303 with caregivers and school clubs in PTCs in Central Uganda.

304

305 **Ethical Issue and consent declaration**

306 In the study, as per international standard or university standard written ethical approval has been
307 collected and preserved by the author(s).The ethical issues like names of participants, their
308 responses plus their location were handled anonymously. In addition, only willing respondents
309 were interviewed.

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