

## FEASIBILITY OF ABSTINENCE AS A PREVENTIVE STRATEGY FOR HIV/AIDS CONTROL IN THE UNIVERSITY STUDENT COMMUNITY IN KUMASI, GHANA

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### ABSTRACT

*HIV is spreading and the youth bear the brunt of its onslaught. Though abstinence until marriage is thought to be the most effective method of HIV prevention for the youth, others think it is ineffective. This study assessed the feasibility of abstinence in preventing HIV/AIDS spread among tertiary students of the KNUST. Study type was non- interventional, descriptive and design current cross- sectional. Study participants were selected by stratified sampling, followed by systematic sampling. A total of 300 participants were sampled. Seventy nine (79%) (95% CI, 73.9-83.8) said STIs could be avoided by abstaining from sex. Ninety six (96%) (95% CI, 93.5-98.3%) said HIV could be acquired via sex. Ninety six (96%) (95% CI, 93.8- 98.5%) of those who said HIV could be avoided said it could be done by abstaining from sex. Seventy two (72%) were of the view that sex should start only after marriage. Sixty nine 69% (95% CI, 63.3-74.4%) said they would wait till after marriage to involve in sex. Sixty seven (67%) (95% CI, 60.7- 72.1%) were encouraged by peers to abstain from sex, Seventy four (74%) (95% CI, 68.5- 79.1%) thought colleagues their age had pre-marital sex and 28% (95% CI, 22.5- 33.4%) said they were pressured to have sex. Thirty one (31%) (95% CI, 25.6- 36.7%) of respondents were sexually experienced. There is the general view that HIV/AIDS spread among the youth can be reduced by abstaining from sex until marriage and that abstinence could and should be encouraged as a preventive strategy for HIV/AIDS.*

**Keywords:** Abstinence, HIV/AIDS, Sex, Marriage

### INTRODUCTION

HIV/AIDS is spreading menacingly worldwide and the youth are bearing the brunt (Senderowitz, 2002). Concerned citizens worldwide in the quest to control the disease are advocating various interventions. Prominent among them is ab-

stinence- keenly promoted by religious organizations and conservatives including President Bush. In Burkina Faso, the National Catholic Committee and the Youth Wing of the Church focus on abstinence until marriage and the teaching of Christian values as ways to prevent HIV/

AIDS (AGI, 2004). In Ghana, most organizations focus on abstinence until marriage (Mayhew, 2004); examples are “Virgin Clubs” (Awusabo-Asare *et al.*, 2004). Abstinence is one of the three methods advocated for HIV/AIDS control, ABC i.e. Abstinence, Be faithful and Condom use. The main thrust of ‘abstinence’ is encouraging the youth to avoid sex till marriage.

Pioneered in the USA in 1981, abstinence only programs teach that abstaining from sex until marriage is the only effective method of HIV prevention (Human Rights Watch, 2005). Numerous U.S.-funded studies have shown these programs as ineffective at changing young people’s sexual behaviours and that they are rather potentially harmful as they discourage the use of contraception (Senderowitz, 2002).

Currently, three federal programs [Adolescent Family Life Program, Abstinence Education Formula Block Grant Program and Community-Based Abstinence Education Grants] fund abstinence-only education. Since 1997, these programs have been funded at over half a billion dollars (HIV Prevention Bulletin, 2003).

Though laudable, to most reproductive health experts, abstinence alone is a nonstarter in preventing HIV/ AIDS spread. In Switzerland abstinence only programs are said to be inefficient and ethically questionable (Michaud, 2003); as amplified in a review by DiCenso *et al.* (2002) - “Primary prevention strategies evaluated did not delay the initiation of sexual intercourse”.

The current study assesses the feasibility of abstinence as a strategy for the control of HIV/AIDS in among students of KNUST.

## **MATERIALS AND METHODS**

A non-interventional, descriptive study type was used. The study design was current cross sectional. Written (self administered) questionnaires were hand delivered to the respondents and collected between September 12 and 31, 2004. A structured questionnaire made up of open-ended, close-ended and pre-categorized questions was

used as the main instrument for data collection. The study focused on young people between the ages of 15 and 24 years, who were studying at KNUST and living on campus. Due to the age structure of students in the university, those in the first and second years of study falling within the above age group were the ones eligible for the study.

The total population of first and second year students was 7,205 (KNUST, 2004). Using StatCalc (Epi Info statistical Software) with an expected frequency for knowledge of HIV transmission as 92%, the worst acceptable frequency for the same parameter at 89% and a confidence level of 95%, the sample size of students was arrived at as 301. Stratified sampling followed by systematic sampling was used to select respondents (i.e. students) for the study. The researchers used this approach with the aim of including students from all the departments and faculties in the study. The population of first and second year students in each department was made as a fraction of the total first and second year student population of the university. Based on these fractions, quotas were allotted to each faculty, after which systematic sampling was used to get the required sample. A list of first and second year students was taken from the faculties and depending on the quotas involved, each  $n^{\text{th}}$  student was chosen. A total of 300 students from various departments of the University were selected and each was given a questionnaire to answer.

Pre testing of questionnaires was done at the Nursing Training College, Kumasi. This enabled the sequence of certain questions to be revised and the introduction of pre categorized instead of close-ended questions in a number of instances. Research Assistants were in charge of data collection. They submitted the answered questionnaires to the Principal Investigator at the close of each day’s work. These questionnaires were checked to ensure that each had been answered after which they were numbered.

Quantitative data collected was analysed and results were enumerated in percentages to enable

comparative analysis. Analysis was done using EPI-INFO version 3.3 (CDC, Atlanta, USA).

## RESULTS AND DISCUSSION

### Background Characteristics of Student Respondents

As shown in table 1, the mean age of respondents in years was 20.78 (range: 16 - 24 years). The median age at sexual debut among the current study participants was 18 years as was in the study by Karim *et al.* (2003). Respondents in the current study who had ever had sex were 30.9% (95% CI, 25.6-36.7%) i.e. 29.5% females and 31.5% males in contrast to 41% females and 36% males in the study by Karim *et al.* (2003) among the general population. Glover *et al.* (2003) noted that up to 52% of all respondents (56% females and 48% males) had ever had sexual intercourse in a study done in the general population. The study by Taffa *et al.* (2003) in Ethiopia came up with a finding similar to the current study: a third of subjects with more males (40.7%) than females (23%) reported previous sexual activity. Females in the current study were found to be abstaining from sex relatively better than their compatriots in the general population. This creates the impression that education redi-

rects the energies of females away from sex much more than for males.

Mean number of partners after first sex was 1.69 (1.44 for females and 1.77 for males). 16 of the 86 sexually experienced respondents did not state the number of partners they had after their sexual debut. Of the sexually experienced respondents, 69.57% females and 68.25% males had more than one sexual partner after sexual debut. This is overly high as compared to 4% females and 11% males found in the general populace by Karim *et al.* (2003).

### Perceptions of STI and HIV/ AIDS

From tables 2 and 3, abstaining from sex (abstinence) was seen by 79.1% (95% CI, 73.9-83.8%) of respondents as the way to avoid getting STIs, followed by the use of condoms 57.6% (95% CI, 51.5-63.4%), avoiding casual sexual partners (32.4%), avoiding sex workers (22.3%) and the use of non penetrative sex (16.2%). Glover *et al.* (2003) noted that, two thirds of respondents mentioned consistent use of condoms and others abstinence, fidelity and avoiding sharing of needles as ways of avoiding STIs. As to how HIV/AIDS could be acquired, 96.4% (95% CI, 93.5-98.3%) of respondents in the current

**Table 1: Background Characteristics of Student Respondents**

Characteristics	Total (N=278) %	Male (N=200) %	Female (N=78) %
1. Mean Age of respondents (Years)	20.78	20.01	20.23
2. Median Age at Sexual Debut	18.00	18.00	18.00
3. Mean no. of partners after 1 <sup>st</sup> sex	1.69	1.77	1.44
4. % Distributions			
a. Age Groups			
15-19	28.8	23.6	41.8
20-24	72.2	76.4	58.2
b. Sex Life			
Ever Had Sex	30.9	31.5	29.5
c. Partners > 1 (in Sexually Experienced)	68.61(n=86)	68.25(n <sub>m</sub> =63)	69.57(n <sub>f</sub> =23)

**Table 2: Perceptions on STI and HIV/AIDS**

Characteristics	Total (N=278) %	Male (N=200) %	Female (N=78) %
<b>1. How to avoid getting STIs</b>			
Non penetrative sex	16.2	13.0	24.4
Using herbs	0.7	0.5	1.3
Use of condom	57.6	55.0	64.1
Abstinence	79.1	82.0	71.8
Avoiding casual partners	32.4	33.5	29.5
Avoiding sex workers	22.3	22.0	23.1
<b>2. Ever heard of the illness AIDS</b>			
Yes	97.1	97.0	97.4
No	2.5	2.5	2.6
<b>3. Do you believe AIDS exists</b>			
Yes	98.6	99.0	97.4
No	1.4	1.0	2.6

**Table 3: Transmission of and Avoidance of HIV/ AIDS**

Characteristics	Total (N=278) %	Male (N=200) %	Female (N=78) %
<b>1. Ways via which a person can get AIDS</b>			
Sexual intercourse	96.4	96.0	97.4
Sharing needles	76.3	83.0	59.0
Blood transfusion	77.3	83.0	62.8
Via breast milk	41.4	45.5	30.8
During pregnancy	40.6	45.0	29.5
Mother to child at birth	81.3	82.5	78.2
Touch of an infected person	2.5	2.0	3.8
Insect bites	1.8	2.0	1.3
<b>2. Is there a way one can avoid AIDS?</b>			
Yes	98.2	98.5	97.4
No	0.0	0.0	0.0
<b>3. If yes to 5, then what can one do?</b>			
	(273)	(197)	(76)
Abstain from sex	96.7	95.4	100
Be faithful to partner	78.8	80.2	75.0
Partner being faithful	57.5	60.9	48.7
Avoid sharing needles	61.9	67.0	48.7
Avoid casual sex	58.2	64.0	43.4
Avoid contaminated blood	54.6	61.4	36.8
Use condoms	61.9	60.9	64.5
Avoid sex workers	48.7	50.3	42.1
Avoid non sterile blades	50.5	54.8	39.5

study said it was through sexual intercourse, 81.3% said from mother to child at birth, 77.3% said via blood transfusions, 76.3% said through the sharing of un-sterilized needles and via breast milk of lactating mothers (41.4%). Touch of an infected person and insect bites were seen as means of transmission by 2.5% and 1.8% of respondents respectively. Glover *et al.* (2003) in their study among the youth in Ghana found out that 96% of them said sexual intercourse, 83% said transmission from mother to baby and 71% said sharing needles were the means of transmitting HIV. Most of them said HIV could not be transmitted via hand shakes or sharing of cooking utensils (Glover *et al.*, 2003). As many as 98.2% of respondents in the current study said were of the view HIV/AIDS could be avoided. Of that proportion, 97.6% (95% CI, 93.8- 98.5%) of them said this could be through abstaining from sex, 78.8% said it could be by being faithful to one's partner, 61.9% each thought it could be by the use of condoms and avoiding the use of un-sterilized needles. Avoiding contaminated blood (54.6%), avoiding non sterile blades (50.5%) and avoiding sex workers (48.7%) were among other ways of avoiding HIV/AIDS. In a study among adolescents in Benue State of Nigeria, abstinence (88%), followed by condom use (81%), and monogamy or mutual fidelity (71%) were seen as the methods of preventing HIV/AIDS (Alubo *et al.*, 2002).

#### **Ideal Age for Sex and Marriage**

As is shown in tables 4 and 5, over two thirds of respondents said the ideal age for a girl to have sex was after marriage. The ideal age for a boy to have sex was seen by 71.2% of respondents as after marriage. The ideal age of marriage for girls and boys was seen by 65.1% and 65.5% respectively of respondents as between 20 and 30 years of age. As many as 69.1% (95% CI, 63.3-74.4%) of respondents said they planned to wait till after marriage before they had sexual intercourse.

#### **Perception on Issues of Premarital Sex**

As is shown in tables 6 and 7, in the current study about three quarters of respondents disagreed with the notion that boys and girls should have sex before marriage. A Thai study found that 25% of men and 60% of women believed that men should never have sex before marriage. However, in the same study, abstinence before marriage is more strongly censured for women both by women (95%) and men (60%) (Shah, 1997). Double standards are exhibited on the issue of premarital sex. Premarital sexual activity is considered to be more acceptable for males than for females by both sexes (Brown *et al.* 2001). In some exceptional cases among secondary school students in Kampala, Uganda (70%) and in Buenos Aires, Argentina (75- 85%) both males and females agreed that premarital sexual activity was normal for both sexes (Brown *et al.* 2001). From results of the current study, two fifths of respondents said they had at one time or the other been encouraged to have sex with other members of their community by their unmarried friends. Two thirds of respondents said there was support from their friends to abstain from sex till marriage. A little over a quarter of respondents said they had at a point in time experienced pressure from their peers to engage in sex with others. Three quarters of respondents had the perception that couples of their age group engage in sexual activities prior to getting married. A third of respondents had ever discussed premarital sexual issues with their parents. Brown *et al.* (2001) saw a different phenomenon where issues like premarital sex were discussed more with peers than with parents. They however made the observation that where reproductive health information was received from the family, young females were more likely to consult their mothers.

#### **CONCLUSIONS**

Almost all the respondents were of the opinion that STIs and HIV/AIDS could be acquired via sex and best controlled by abstaining from sex first and foremost. Over two-thirds of the respon-

**Table 6: Perception on Issues of Premarital Sex**

Characteristics	Total (N=278)	Male (N=200)	Female (N=78)
<b>1. A boy should have sex before marriage</b>			
Agree	18.7	18.5	19.2
Disagree	72.7	74.5	67.9
Don't know	8.6	7.0	12.8
<b>2. A girl should have sex before marriage</b>			
Agree	16.5	16.5	16.7
Disagree	76.3	77.0	74.4
Don't know	7.2	6.5	9.0

**Table 7: Support from Peers and Parents to Avoid Premarital Sex**

Characteristics	Total (N=278)	Male (N=200)	Female (N=78)
<b>1. Unmarried girls encourage others to sex</b>			
Yes	29.1	30.5	25.6
No	28.1	28.0	28.2
Don't know	42.8	41.5	46.2
<b>2. Unmarried boys encourage others to sex</b>			
Yes	42.1	43.5	38.5
No	22.7	25.5	15.4
Don't know	35.3	31.0	46.2
<b>3. Have you ever been thus encouraged</b>			
Yes	40.3	40.5	39.7
No	54.3	53.0	57.7
Don't know	5.4	6.5	2.6
<b>4. There is support from friends to abstain from sex until marriage</b>			
Yes	66.5	63.0	75.6
No	22.7	25.5	15.4
Don't know	10.8	11.5	9.0
<b>5. There is pressure from friends to have sex</b>			
Yes	27.7	30.0	21.8
No	65.1	62.0	73.1
Don't know	7.2	8.0	5.1
<b>6. Do you think couples your age group have sexual relations before marriage</b>			
Yes	74.1	78.0	64.1
No	4.3	4.0	5.1
Don't know	21.6	18.0	30.8
<b>7. Ever discussed with your parents issues of premarital sex</b>			
Yes	31.7	28.5	39.7
No	61.9	64.0	56.4
Don't know	6.5	7.5	3.8

**Table 4: Ideal Age for Sex and Plans for Future Sex**

Characteristics	Total (N=278)	Male (N=200)	Female (N=78)
<b>1. Ideal age for a girl to have sex</b>			
Between 10 and 20 years of age	9.4	10.5	6.4
Above 20 years of age	2.5	4.0	5.1
After marriage	72.3	70.0	74.4
Other	1.4	0.5	2.6
Don't know	14.4	15.0	11.5
<b>2. Ideal age for a boy to have sex</b>			
Between 10 and 20 years of age	9.4	10.5	6.4
Above 20 years of age	4.3	4.0	5.1
After marriage	71.2	70.0	74.4
Other	1.1	0.5	2.6
Don't know	14.0	15.0	11.5
<b>3. Plans for sexual intercourse in the future</b>			
I plan to wait until marriage	69.1	68.5	70.5
I plan to have sex as soon as possible	2.2	3.0	0.0
I plan to have sex when my partner wants it	2.2	2.5	1.3
I plan to wait until I find someone I love	5.0	5.5	3.8
I plan to have sex at the least opportunity	1.1	1.0	1.3
I plan to wait till I'm at least 17	0.7	0.5	1.3
I plan to wait till I'm at least 19	1.8	2.5	0.0
You can't plan for sex, it just happens	13.7	11.5	19.2
None of the above	4.3	5.0	2.6

**Table 5: Ideal age for Marriage**

Characteristics	Total (N=278)	Male (N=200)	Female (N=78)
<b>3. The ideal age for a girl to get married</b>			
15 to 20 years of age	7.2	9.0	2.6
20 to 30 years of age	65.1	65.0	65.4
Above 30 years of age	0.0	0.0	0.0
Other	5.4	3.5	10.3
Don't know	22.3	22.5	21.8
<b>4. The ideal age for a boy to get married</b>			
15 to 20 years of age	0.7	1.0	0.0
20 to 30 years of age	65.5	70.0	53.8
Above 30 years of age	5.0	2.5	11.5
Other	5.4	3.5	10.3
Don't know	23.4	23.0	24.4

dents said the ideal age/ time for both boys and girls to have sex was after marriage. The ideal age for marriage was seen by about two-thirds of respondents as between 20 and 30 years. A little over two-thirds of students said they would wait till marriage to have sex.

More than two-thirds of respondents were against premarital sex for both boys and girls.

On the whole the study participants were against premarital sex and thought that abstinence was the best way of avoiding STIs and HIV/AIDS in particular. Abstinence therefore could be a feasible strategy in combating the spread of HIV/AIDS among the student population of KNUST.

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