

Impact of HIV/AIDS Awareness on the Sexual Behaviour of Undergraduate Students

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Abstract

Human Immunodeficiency Virus (HIV) infection and the associated Acquired Immunodeficiency Syndrome (AIDS) have remained a public health concern. While it has been identified that young adults including most undergraduate students are potentially risk factors for the spread of HIV/AIDS, studies have emphasized on vaginal sexual intercourse as it is the most probable method of transmission. Yet, there is a population of unmarried Muslim girls who are deterred from virginal sex by their religious demand for virginity until marriage. Thus, the objective of this work is to identify the strengths and weaknesses of research articles from Nigeria on sexual behaviour of undergraduate students in order to assess the validity of research findings to unmarried Muslim girls in north-east Nigeria. This mini-review was designed to be a critical appraisal of literature. The method employed a peer-reviewed protocol on 'how to critically appraise an article'. Standard questions of the protocol were adopted verbatim to critically appraise two articles that were identified. The findings from the appraisal draw attention to the lack of, and need for investigation of the level of behavioural change wheel among Muslim undergraduate students. In particular, how awareness level of HIV/AIDS influences their sex behaviour has yet to be articulated. The paper articulates what is already known with a view to developing the community needs assessment program of work.

Keywords: HIV Awareness, Muslim Premarital Sex Abstinence, Sexual Behavior, Undergraduate Students, Unmarried Girls

1. Introduction

One of the infectious disease challenges confronting the entire human race is the highly dreaded Human Immune Deficiency Virus (HIV) infection and Acquired Immunodeficiency Syndrome (AIDS). This condition has yet to have a cure and it is rapidly spreading; thus constituting a threat to public health. It is known that college students are higher risk for contracting Sexually Transmitted Disease (STD), including HIV/AIDS^{1,2}. This has been attributed to the fact that students are either not well informed, or have

erroneous perception^{3,4}. The history of HIV/AIDS dates back to the 1920s when it was presumed that HIV may originate from Africa and had from chimpanzee to humans (Table 1)⁵.

It has been estimated that about 37 million people are living with HIV while the incidence new cases in 2016 could be up to 2 million⁶. In Nigeria, the estimation is about 3 million people are living with HIV while the 2013 incidence of new cases was 0.2 million⁷. Further, it is speculated that about 50% of new cases occur most in the young adults below 24 years old including the community of undergraduate students².

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Table 1. Historical overview of HIV⁵

	<1980	1982	1986	1990	1996	2000	2006	2013
Presumption of origin	█							
CDC used to the term 'AIDS'		█						
AIDS's cause named HIV			█					
6th int'l AIDS conference				█				
UNAIDS established					█			
MDG on HIV						█		
Circumcision emphasis							█	
≈35m people living with HIV								█

While concerted efforts in public health ministries have been geared towards improving awareness, research is also focused on sexual health behaviour in terms of knowledge of, and attitude towards preventive measures⁸⁻¹². The studies that have been carried out in Nigeria have yet to include community assessment needs in the north-eastern part of the country especially in relation to prevalence and riskiness of sexual behaviour of the unmarried Muslim youth. There are reports from the southern Nigeria¹¹⁻¹³, and one from north-central^{14,15}, but none has been found to be based on north-eastern region.

The objective of this work is to critically assess the strengths and weaknesses of a research articles from Nigeria on sexual behaviour of undergraduate students. This is in the context of community assessment needs of unmarried Muslim girls in north-east Nigeria on issues regarding healthy sexual behaviour and prevention of HIV/AIDS. This study was designed to be a mini-review using critical appraisal methodology. The research method employed a peer-reviewed protocol on 'how to critically appraise an article'. Two articles were identified to be on the subject matter. Afterwards, standard questions of the protocol were adopted verbatim to critically appraise the two articles.

2. Critical Review

In the report of Abiodun and his group¹¹, the background of the study was limited as the factor of undergraduate students' self-interest has not being considered. The limitation flowed on to the methods and results, whereby data on the prevalence of sexual activity among the respondents were not part of their research agenda. The results show that 96% of the respondents were aware of abstinence as a way of prevention, but whether the participants were practicing abstinence from sexual intercourse was not reported.

Therefore, one of the major determinants of having HIV test, which is unprotected sexual intercourse was never really investigated (Table 2).

In the earlier report from Odu et al, high knowledge of HIV is corroborated (Figure 1)¹². Importantly, abstinence was practiced by up to 42% of the students, which translates to the proportion of the community that are non-vulnerable, if all other factors are taken care of. However, the authors recommended culturally sensitive program that was neither assessed in the methodology, nor indicated in their results (Table 3).

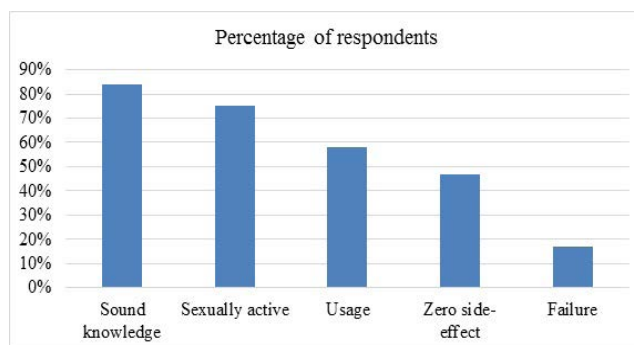


Figure 1. Percentage of respondents with knowledge of preventive measures¹².

In Northern Nigeria, undergraduate female students are predominantly Muslims and less likely to engage in pre-marital sexual intercourse, relative to Christians in the south¹⁷. Therefore, it is likely that the practice of abstinence will be high and the need for HIV conversely low. Adjunct to this low likelihood of sexual activity among unmarried undergraduate students in northern Nigeria may be low level of need of HIV testing. However, the prevalence of non-penetrative unsafe sexual practices that predispose to HIV infection needs to be evaluated.

Table 2. Response to critical appraisal checklist* on the report of Abiodun et al (2014)

Appraisal checklist question	Yes/No	Long answer
Is the study question relevant?	Yes	Study was on 'knowledge' and accordingly assessed
Does the study add anything new?	Yes	The report shows that university students are quite knowledgeable about the sexual health issue
Was the study design appropriate for the research question?	Yes	Cross-sectional survey is appropriate
Did the study methods address the most important potential sources of bias?	No	Given the study population, knowledge of abstinence was assessed, but the practice as a factor for 'no need' of the HIV is not determined
Was the study performed according to original protocol?	Yes	Reference is made to the original protocol adopted
Does the study test a stated hypothesis?	No	Hypothesis never indicated
Were the statistical analyses performed correctly?	Yes	Statistics were simple and straight forward
Do the data justify the conclusions?	No	The recommendation for innovative school-based program is unsubstantiated, because assessment of need has yet to be performed. Study was limited to 'knowledge of...'; but practice (i.e. prevalence of sexual activity) that will warrant such program was never really not indicated
Are there any conflicts of interest?	No	

* Solomon and Young¹⁶**Table 3.** Response to critical appraisal checklist* on the report of Odu et al (2008)

Appraisal checklist question	Yes/No	Long answer
Is the study question relevant?	Yes	Study was on 'knowledge and practice' and accordingly assessed
Does the study add anything new?	Yes	The report shows that university students are quite knowledgeable about the sexual health issue; and up to 42% are practicing abstinence
Was the study design appropriate for the research question?	Yes	Cross-sectional survey is appropriate
Did the study methods address the most important potential sources of bias?	Yes	Knowledge and practice of abstinence were assessed
Was the study performed according to the original protocol?	Yes	Reference is made to the original protocol adopted
Does the study test a stated hypothesis?	No	Hypothesis never indicated
Were the statistical analyses performed correctly?	Yes	Statistics were simple and straight forward
Do the data justify the conclusions?	No	The recommendation for culturally sensitive program is unjustified, because assessment of culture as a factor was not performed
Are there any conflicts of interest?	No	

* Solomon and Young¹⁶

3. Comment

Perhaps, analogies to rearticulate the objective of the review are three common marriage scenarios of couples that are 1. Separated by work; 2. Desperately looking for a child, and 3. Consciously doing birth control. In the first scenario, the partners may have no need for contraception use or fear of contracting HIV through sexual intercourse while being apart, if they are faithful. That is, given the indication for HIV testing being mainly sexual intercourse¹⁸; prevention

of sexually transmitted HIV among this couple is by default abstinence. In the second scenario, the desire to conceive a child means that they will not use any form of contraception. Instead, the likelihood of having multiple partners and/or unprotected sexual intercourse is a risk for HIV infection. Thus, prevention of sexually transmitted HIV infection will be difficult and the risk will most likely be by unprotected sex. In the third scenario, the couple may already be using a contraception method. Hence, unlike the second case scenario where contraceptive is obviously

contraindicated or unwarranted¹⁹, some methods of preventing HIV infection such as use of condom may be welcomed.

A vast majority of undergraduate students do complete ≥ 3 years of study program without having a child. This is apparent evidence of successful contraception, which may translate to HIV prevention. It is contended here that undergraduate unmarried Muslim girls may be doing this by abstinence, synonymous to analogy of first scenario. This contention is corroborated by the recent report from north-central region of the country¹⁴. However, it must be noted that the abstinence may be driven by the religious demand for virginity until marriage²⁰. Sequel to this, it also need to be acknowledged that virginity relates only to virginal sex, and never precludes other sexual acts and behaviour such as anilingus, cunnilingus and fellatio²¹. Further, premarital sex among Muslims girls are never ruled out completely, but just significantly low when compared to Christian adolescents¹⁷.

The prevalence of anilingus, cunnilingus and fellatio is up to 50% among adolescents²¹. Among the Muslim unmarred youth, perceptions are changing and actual prevalence of sexual activities is yet to be ascertained²²⁻²⁴. It has been highlighted that as access to education increases in the Northern Nigerian increases, the age of first sexual intercourse among Muslim girls is likely to increase¹⁷. This means that chances of risky sexual behaviour may commensurably increase among Muslim girls. Therefore, with reference to unmarried Muslim undergraduate students in Northern Nigeria, some of the questions that require answers are:

- What is the level of knowledge on sex education?
- What is the prevalence of non-vaginal sexual intercourse – including anilingus, and fellation as well as total abstinence from all types of sexual intercourse?
- What is the level of awareness of HIV/AIDS infection in the different subpopulations who practice anilingus, fellation and total abstinence?

Ideally, health students are the future of public health and as such, should be knowledgeable right from the undergraduate days. These questions will be useful for investigating how the awareness of HIV/AIDS influences the sexual behavior of undergraduate students such as in Colleges of Health Technology in the Northern Nigeria. Given the possibilities of anilingus and fellation, such study can identify ways of further prevention of HIV/AIDS infection unmarried Muslim youth.

4. Conclusion

This critical review demonstrates that the recommendation for innovative school-based program is unsubstantiated, because assessment of need has yet to be performed, especially with regard to the prevalence of different forms of sexual activity that will warrant specific program. Also, the need for culturally sensitive program is identified, but assessment of culture as a factor has yet to be included in research among undergraduate students. The significance of the study is basically classified in to two; academic and non-academic significance.

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