



Original Article

Sexual and reproductive health in HIV-positive adolescents

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ABSTRACT

Objectives: Adolescents grow to experience both emotional and sexual changes that occur at this stage in life. During this stage, these adolescents have increased experimentation, including sexuality, this also affects HIV-positive adolescents. The aim of this study was to evaluate the sexual and reproductive health of HIV-positive adolescents.

Material and Methods: A semi-structured interviewer-administered questionnaire was used to obtain relevant information from adolescents who were enrolled into the study over a 6 months period. Information obtained included the bio-data, menstruation, sexual activity, HIV status of partner, use of contraceptives, abortion, and treatment of sexually transmitted infections (STIs). Data were analyzed using SPSS version 23.

Results: One hundred and forty-seven HIV-positive adolescents were recruited into the study, males were 56 (38.1%), while females were 91 (61.9%). Fifty-nine (64.8%) of the females have started menstruating, out of which nine (6.1%) of them were sexually active. All those that were sexually active did not know the HIV status of their partners. Four (44.4%) of those who were sexually active use contraceptives, while three became pregnant out of wedlock and one had an abortion. Three (33.3%) of the sexually active adolescents had sexually transmitted infection. None of the 46 early adolescents was sexually active, but three out of the 71 middle adolescents and 6 out of the 30 late adolescents were sexually active.

Conclusion: HIV-positive adolescents engage in sexual activities which are sometimes risky, just like other adolescents. The consequences of such acts include unplanned pregnancies and abortions in addition to sexually transmitted infections. Therefore, additional programs/interventions should be put in place to address these observations as well as prepare them as they transit to adulthood.

Keywords: Adolescence, HIV, Sexual activity, Reproductive health, Pregnancy, Sexually transmitted infections

INTRODUCTION

The World Health Organization (WHO) defined adolescent as an individual between the ages of 10 and 19 years,^[1] and there are over 1 billion 10–19 years old in the world.^[2] The United Nations Children Funds (UNICEF) in 2018 had estimated that about 1.6 million of these adolescents were living with HIV and of this, 190,000 of those aged 15–19 years were newly infected with HIV.^[3] In addition, Sub-Saharan Africa is still responsible for most (88%) of adolescents living with HIV worldwide. In 2017, the HIV prevalence among Nigerian adolescents aged 15–19 and young people aged 20–24 was estimated to be 2.9% and 3.2%, respectively.^[4]

The period of adolescence is associated with physical and emotional development with lifestyle and sexual behavioral experimentation.^[5-7] Therefore, sexual interest can lead to undesired

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consequences such as unplanned pregnancies and sexual transmitted diseases, including HIV. The environment where these young people live and make a decision regarding sexual and reproductive health is changing at a fast pace.^[8] Furthermore, the age at sexual initiation is changing and the rates at which they have sexual initiation in this age group are rising or remaining unchanged in many developing countries.^[9,10] Adolescent sexual activities either within the context of marriage or outside marriage have also been shown to lead to a negative reproductive health outcome^[11] because these young adults are not yet matured both physically and emotionally. Several studies^[12-18] have shown that sexual experience is a common phenomenon among adolescents, and the age at sexual initiation is becoming lower.^[13,14] Adolescents with HIV are also involved in sexual activities,^[19-23] and the age at sexual initiation is comparable to that of HIV-negative adolescents.^[19] The consequences of indulging in such sexual activities such as pregnancies and sexually transmitted diseases have also been reported among HIV-positive adolescents.^[21-23] Some of these individuals do have multiple sexual partners, do not disclose or know the HIV status of their partners in addition to being inconsistent with the use of condoms. Such type of sexual intercourse is called by some a condom-less sex.^[24] The implication of this is the transmission of HIV and possibly the drug-resistant strains of HIV, and this has been reported in perinatally HIV-infected adolescents.^[25]

Two-thirds of the HIV-positive children attending the pediatric antiretroviral therapy (ART) program of Jos University Teaching Hospital (JUTH) are adolescents aged 10–19 years. These adolescents living with HIV have sexual desires like HIV negative adolescents. During this stage, these adolescents have increased experimentation, including sexuality; this may be contributing to the minimal progress in reversing the HIV epidemic in Nigerian youths compared to other age groups. Therefore, this study looked at the sexual and reproductive health (SRH) of this category of adolescents whose sexual and reproductive health status have not been studied before. The outcome of the study will enable us to have a baseline information on the SRH status of these adolescents and ensure proper linkages to SRH services.

MATERIAL AND METHODS

The study was conducted in the Pediatric Infectious Disease Clinic of Jos University Teaching Hospital, Jos, Nigeria. This was a cross-sectional descriptive study, in which data were collected over a 6 months period. Written informed consent was obtained from the parents/guardians of the adolescent and assent from the eligible adolescent after the study was explained to them. Eligible subjects were consecutively enrolled into the study and a semi-structured questionnaire was used to collect all relevant information which included

the age, sex, sexual activity, menstrual history, pregnancy and abortion history, HIV status of sexual partner, and history of contraceptive use and type.

Ethical approval was given by the Health Research Ethical Committee (HREC) of Jos University Teaching Hospital, (JUTH). Participation in the study was voluntary, and subjects were allowed to withdraw at any stage of the study. The data collected were analyzed using SPSS version 23. Results were presented in descriptive statistics in texts and frequency table.

RESULTS

A total of 147 HIV-positive adolescents were recruited into the study. There were 56 (38.1%) males and 91 (61.9%) females. There were 46 early (10–13 years), 71 middle (14–16 years), and 30 late (17–19 years) adolescents. Table 1 shows the sexual and reproductive characteristics of these adolescents. Fifty-nine (64.8%) of the females have started menstruating, out of which nine (6.1%) of them were sexually active. All of them that were sexually active did not know the HIV status of their partners, while only 4 (44.4%) of them said

Table 1: Sexual and reproductive health characteristics of HIV-positive adolescents.

Variables	Frequency (%)
Started menstruation (<i>n</i> =91)	
No	32 (35.2)
Yes	59 (64.8)
Sexually active	
No	138 (93.9)
Yes	9 (6.1%)
Does your partner know your HIV status? (<i>n</i> =9)	
No	5 (55.6)
Yes	4 (44.4)
HIV status of your partner	
Unknown	9 (100.0)
Known	0 (0.0)
Use contraceptive (<i>n</i> =9)	
No	5 (55.6)
Yes	4 (44.4)
Pregnancy outside wedlock (<i>n</i> =91)	
No	88 (96.7)
Yes	3 (3.3)
Contraceptive type (<i>n</i> =4)	
Condom	3 (75.0)
Pills	1 (25.0)
Abortions in the past (<i>n</i> =9)	
No	8 (88.9)
Yes	1 (11.1)
Treated for STI	
No	6 (66.7)
Yes	3 (33.3)

*STI: Sexually transmitted infections

that their partners knew their HIV status. Four (44.4%) of those who were sexually active used contraceptives (condom 3 and pills 1), while three got pregnant out of wedlock and one had an abortion. Three (33.3%) of the sexually active adolescents had sexually transmitted disease. None of the 46 early adolescents was sexually active, but three out of the 71 middle adolescents were sexually active, while 6 out of the 30 late adolescents were sexually active.

DISCUSSION

This study set out to look at the sexual and reproductive health (SRH) of adolescents who are HIV-positive. Like some other studies in the general population of adolescents^[12-18] as well as in those that are HIV-positive,^[19-24] this study also recorded a number of them that were sexually active. This is not surprising, as children reach the adolescent age, the chemical changes that occur during this period which is a natural part of growth makes them begin to have sexual feelings and therefore begin to experiment.^[5-7] Studies have shown that sexual activity among adolescents both in the general population and among those who are HIV-positive is not only common, but the age at initiation of sexual intercourse is becoming lower. In this study, the lowest age at which an adolescent was involved in sexual activity was 14 years. Some studies have reported ages at sexual initiation among HIV-positive adolescents to range from 12–18.3 years.^[19,20,22-25] The rate of this sexual initiation has continued to change in the general adolescent population, and the age at initiation is becoming lower with a report of first sexual experience to have occurred at <10 years.^[9,10,14] This implies that premarital sexual experience is becoming commoner in young people, including the HIV-positive adolescents without contemplating the consequences which include transmitting HIV, other STIs and pregnancy. This may, in the long run, lead to failure to complete their education and increase reproductive and psychological problems.

In this study, nine (6.1%) of the adolescents were sexually active, a rate that this is much lower than the rates found in some studies.^[18-20,22-25] All the sexually active adolescents in this study were females and are comparable to the study from Uganda by Mbalinda *et al.*,^[22] but at variance with the report by Tassiopoulos *et al.*^[25] that showed that males were more sexually active than females. The study by Mbalinda *et al.*^[22] showed that being a female, aged group 15–19 years and living alone were significantly associated with ever having sexual intercourse. This study similarly found that the female gender and being single increased the chances of having sexual intercourse compared to the male counterpart. This may possibly be because physical and sexual maturation occurs earlier in females than in males and may lead to earlier sexual exposure in the females compared to the males.^[8] However, even though females generally attain

sexual maturity earlier than males, but their actual sexual behavior can also be influenced to a greater extent by their social environment,^[26] on the other hand, relationships with peers tend to influence the tendency to engage in sexual activities in both genders.^[27]

All the adolescents in this study that were sexually active reported that they had no knowledge of the HIV status of their partner, which is a great risk. On the other hand, only four of them said that their partners knew their HIV status. Such risky sexual intercourse is what can increase the chances of transmission of the virus, especially when such sexual activities are carried out without protection. In addition, the partners of these girls probably were also HIV-positive and did not disclose their status or they have come to accept the HIV status of their partners or the carefree attitude that exist among these young people without contemplating on the consequences of their action.

Only four of the females used some form of contraceptives (three condoms and one pill). The others had unprotected sex which can expose them to the risks of unintended and unwanted pregnancies and abortion, as well as transmission of HIV, others STIs,^[8,25] as well as resistant strains of HIV.^[25] A barrier method of contraception using condom has been found to reduce the chances of transmitting HIV, including resistant strains of HIV and preventing unwanted pregnancies. However, contraceptive failure is a major contributor to unintended pregnancies.^[28,29] Condom, on the other hand, has the highest failure rate in preventing pregnancies due to poor adherence but reduces risk of HIV and STIs transmission.^[30] These consequences have been reported among HIV-positive adolescents.^[21-23] In this study, three of them became pregnant before marriage and one of them had an abortion, while three reported having had treatment for sexually transmitted infection (STI). This has demonstrated that these adolescents are ill-equipped to deal with the consequences of sex. Teenage sexual activity, whether or not it leads to pregnancy or birth may have a negative impact on young women's future like being a school dropout and this may also affect her marital life.^[31]

This study depended on self-reporting by the adolescents; therefore, this is subject to information bias and might have affected the inferences made from the data obtained.

CONCLUSION

HIV-positive adolescents like their HIV negative counterparts do engage in sexual activities which sometimes are risky. The consequences of which led to unplanned pregnancies and abortions in addition to contracting sexually transmitted infections. Therefore, additional programs/interventions should be put in place to address these observations as well as linking these HIV-positive adolescents to SRH services.

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Declaration of patient consent

Institutional Review Board (IRB) permission obtained for the study.

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Conflicts of interest

There are no conflicts of interest.

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