Early sexual debut: prevalence and risk factors among secondary school students in Ido-ekiti, Ekiti state, South-West Nigeria.

Kabir Adekunle Durowade¹, Oluwole Adeyemi Babatunde¹, Lukman Omotayo Omokanye², Olusegun Elijah Elegbede¹, Lawrence Majekodunmi Ayodele³, Kayode Razaq Adewoye¹, Stella Adetokunbo¹, Charles O Olomofe¹, Adegboyega A Fawole², Oyebola Eyitayo Adebola⁴, Temitope O Olaniyan¹

- 1. Department of Community Medicine, Federal Medical Centre, Ido-Ekiti, Ekiti State, Nigeria.
- 2. Department of Obstetrics and Gynaecology, University of Ilorin, Ilorin, Nigeria.
- 3. Department of Behavioural Sciences, Federal Medical Centre, Ido-Ekiti, Ekiti State, Nigeria.
- 4. Department of Epidemiology and Community Health, University of Ilorin Teaching Hospital, Ilorin, Kwara State, Nigeria.

Abstract

Background: Early adolescent sexual activity remains a recurring problem with negative psychosocial and health outcomes. The age at sexual debut varies from place to place and among different individuals and is associated with varying factors. The aim was to determine the prevalence and risk factors of early sexual debut among secondary school students in Ido-Ekiti, South-West Nigeria.

Methodology: This was a cross-sectional study. The respondents were selected using multi-stage sampling technique. Pre-tested, semi-structured, self-administered questionnaire was used to collect data. Data was analyzed using SPSS version 15.

Results: More than two-thirds, 40(67.8%), had early sexual debut. The prevalence of early sexual debut was about 11%. The mean age of sexual debut was 13.10 ± 2.82 ; the mean age for early sexual debutants was 11.68 ± 1.98 . The mean number of sexual partners was 2.44 ± 1.99 . Male gender, having friends who engaged in sexual activities had association with early sexual exposure (p<0.05). Alcohol intake had the strongest strength of association for early sexual debut among the students.

Conclusion: The high prevalence of early sexual exposure among the students calls for urgent interventions to stem the trend. This will help to reduce the devastating negative psycho-social and health sequels.

Keywords: Sexual debut, prevalence, risk factors, Nigeria.

DOI: https://dx.doi.org/10.4314/ahs.v17i3.3

Cite as: Durowade KA, Babatunde OA, Omokanye LO, Elegbede OE, Ayodele LM, Adewoye KR, Adetokunbo S, Olomofe CO, Fawole AA, Adebola OE, Olaniyan TO, Early sexual debut: prevalence and risk factors among secondary school students in Ido-ekiti, Ekiti state, South-West Nigeria. Afri Health Sci. 2017;17(3):614-622. https://dx.doi.org/10.4314/ahs.v17i3.3

Introduction

Early sexual debut (commonly defined as having had first sexual intercourse at or before age 14) and experience of sexual coercion or violence contribute to unintended adolescent pregnancy.¹ Early age at sexual debut increases young people's risk of infection with HIV and other STIs.² Besides being an important determinant of HIV

Corresponding author:

Kabir Adekunle Durowade, Department of Community Medicine, Federal Medical Centre, Ido-Ekiti, Ekiti State, Nigeria. P.O. Box 256, Ilorin, Nigeria Phone: +2348056437530 E-mail: kadurowade@yahoo.com infection, early age at sexual debut has negative effects on academic outcomes which can extend beyond secondary school, although concurrent changes in other psychosocial risk factors have not been investigated.^{3,4}

Globally, early adolescent sexual activity remains a recurring public health issue.⁵ Early age at sexual debut is not without its accompanying complications⁶⁻⁸ which may range from an increased incidence of multiple sexual partners, unprotected sex, risk for sexually transmitted diseases including HIV/AIDs, unwanted and teenage pregnancies, unsafe abortions to mention a few.

Age at sexual debut varies from place to place and among different individuals, and is often due to varying factors. Among Nigerian adolescents aged 15-19 years, a fifth of them were found to have initiated sex (18% males and

African (a) 2017 Durowade et al; licensee African Health Sciences. This is an Open Access article distributed under the terms of the Creative commons Attribution License (https://creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. 22% females).⁶ Among Jamaican adolescents, the mean age at sexual debut was noted to be 11 years among girls and 15 among boys.⁵ In Ohio, USA, among adolescents aged 13-17 years, 8.6% of the adolescents aged 13 years admitted to having been sexually active before age 13. This number escalated with increasing age- 17.7% before 14 years, 31.2% before 15years, 54.9% before 16 years and as high as 68.6% before 17 years.⁷

A number of factors have been identified as contributory to early age at sexual debut. For example mother's age at first sex has been found to be significantly associated with several of the children's early social behavior and their likelihood of being sexually active before the age of fourteen.⁷ Other factors that have been identified include substance and alcohol use, high prevalence of sexual initiation among peers, permissive norms about negative sexual outcomes, family economic disadvantage, large family size, minority group status, unstable family environment and low maternal education. Factors that have been identified as being protective on the other hand include religious inclination, older age of the adolescent, academic expectations, achievements, parental monitoring,^{5,7,8}

This study therefore sought to identify the risk factors, determine the age at sexual debut and assess the prevalence and risk factors of early sexual debut among secondary school students in Ido-Ekiti, Ekiti State. For the purpose of our study, early sexual debut was taken as any penetrative sexual exposure at or before the age of 14 years irrespective of gender or circumstances.

Methodology

Ido-Ekiti, a semi-urban community and headquarter of Ido/Osi Local Government Area (LGA) of Ekiti State, is located in the South-Western part of Nigeria. With a total land area of 332km², the landmass enjoys friendly warm climate and fertile vegetation suitable for agricultural activities. Ido-Ekiti is bounded to the North by Usi-Ekiti; in the South by Igbole-Ekiti and Ora-Ekiti; in the East by Orin-Ekiti and Ipere-Ekiti and lastly to the West by Ilogbo-Ekiti. As at 2006, Ido-Osi LGA had a total population of 159,114 with vastly educated people. With an annual growth rate of 3.2%, the six year projected population will be 192,215.⁹⁻¹¹

The people of Ido-Ekiti speak the Ekiti dialect of the Yoruba language. They are predominantly farmers growing both cash and food crops. These include Cocoa, Coffee, Kolanut, Yam, Maize and Okro among others. However, few of the people engage in vocational services. The people practice Christianity and Islam while some are traditional worshippers.

Certain noticeable social practices that are practiced among the people, especially the adolescents, include early penetrative sexual exposure, and associated multiple sexual partners with concomitant teenage pregnancy. Housing in certain segments of the community is overcrowded with concomitant poor sanitation and filthy environment, a reflection of the low socio-economic status of the people.

Ido-Ekiti had a total of six (three private and three public) secondary schools. These schools do not have guidance and counsellors and sex education was not in the curriculum of these secondary schools. Most of these schools are co-educational secondary schools.

The study was a descriptive/cross sectional study to identify the risk factors and determine the prevalence of early age at sexual debut among students of secondary schools in Ido-Ekiti, Ekiti State. The minimum sample size for the study was determined using Fisher's formula for estimating sample size to determine the prevalence or proportion of a factor where the population is greater than 10,000¹². With 10% non-response rate, a total of 271 was obtained as sample size which was rounded up to 300. However, a final total of 365 respondents were sampled during the study.

A multistage sampling technique with four stages was used to select the respondents for the study. In the first stage, simple random sampling technique by balloting was used to pick four schools (two public and two private) out of the six secondary schools in the community. Thereafter, in the stage two, stratified sampling technique was used to divide the schools selected into strata based on class, i.e. JSS1 – SSS 3. In the stage three, simple random sampling technique by balloting was used to select two arms in each class. Weighted allocation was used to calculate the number of respondents that were selected from each of the selected arms of a class. In the final stage, simple random sampling by balloting was used to select the respondents that participated in each of the selected arms of a class.

A self administered, semi-structured questionnaire was used to elicit the study subjects' socio-demographic characteristics, age at sexual debut, factors responsible for early sexual debut and reproductive health parameters among the respondents. The questionnaire was pre-tested in another secondary school in Ilorin metropolis, Kwara State with a view of detecting deficiencies or ambiguities in the questionnaire and making appropriate corrections. Four research assistants participated and assisted in the data collection on the field. Data collation and editing was done manually to detect omission and ensure uniform coding. Data were analyzed using SPSS version 15 (IBM SPSS, Inc. Chicago, 2006); frequency tables and cross tabulations were generated to show the distribution across the socio-demographic variables and the presence of risk factors for early sexual debut. Bivariate analysis involving the use of Chi square, odds ratio with 95% confidence interval were employed to analyze the association among the variables. Chi-square test was used to determine statistical significance of observed differences in the cross tabulated variables. Odds ratio (OR) and Phi co-efficient (φ) were calculated to determine the strength of association between the risk factors and early age at

sexual debut. Ethical approval for the study was obtained from the research and ethics committee of the Federal Medical Centre, Ido-Ekiti. Informed assent/consent was obtained from the participants and the nature of the research was explained. Anonymity and confidentiality of the respondents' responses was ensured and guaranteed.

Result

As shown in Table 1, the mean age of the respondents was 14.95 ± 1.73 . Approximately half of the students were males and more than three-quarters, 323(88.5%), were Christians. Also, as seen in Table 1, more than three-quarters of the respondents had their mothers and fathers alive. While about a third of them had fathers with tertiary education, about half of them had mothers with tertiary education.

Age group (years)Who do you live with<102 (0.6)10-14137 (37.5)>14226 (61.9)Mean=14.95±1.73RelativeSexGoodMale180 (49.3)Female185 (50.7)ReligionCodeChristianity323 (88.5)Islam42 (11.5)Poor3 (0.8)Mother AliveYesYes352 (96.4)Father Alive112 (30.7)No13 (3.6)Mother S234(64.1)Relative16 (4.4)Others3 (0.8)Mother AliveYesYes340 (93.2)No25 (6.8)Father AliveYesYes340 (93.2)No25 (6.8)Father24 (6.6)Mother51 (14.0)Age at first menses(girls)Kyears N=185Kelative167 (90.3)Peter's Education10-14None29 (7.9)Pirmary66 (18.1)Secondary119 (32.6)Junior55 (15.1)Senior310 (84.9)	Variable	Frequency(%)	Variable	Frequency (%)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Age group (years)		Who do you live	e with
>14 226 (61.9) Mother 64 (17.5) Mean=14.95±1.73 Relative 41 (11.2) Sex Others 2 (0.5) Male 180 (49.3) Relative 41 (11.2) Female 180 (49.3) Relative 41 (11.2) Christianity 223 (85.5) Relative 2 (0.5) Islam 42 (11.5) Poor 3 (0.8) Mother Alive Very good 323 (88.5) Good 30 (8.2) Yes 352 (96.4) Father 112 (30.7) No No 13 (3.6) Mother 234(64.1) Relative 16 (4.4) Others 3 (0.8) Yes 340 (93.2) No 23 (66.6) No 25 (6.8) Ever had a boy friend/ girl friend Raised by who Yes 122 (33.4) No Both parent 25 (6.8) Yes 243 (66.6) Father 24 (6.6) No 243 (66.6) Mother's Education 10-14 167 (90.3) 10-14 None 29 (7.9) >14 18 (9.7) <	<10	2 (0.6)	Both parent	236 (64.7)
>14 226 (61.9) Mother 64 (17.5) Mean=14.95±1.73 Relative 41 (11.2) Sex Others 2 (0.5) Male 180 (49.3) Relative 323 (88.5) Female 185 (50.7) Relationship with parents Very good 323 (88.5) Religion Good 30 (8.2) (50.7) Islam 42 (11.5) Poor 3 (0.8) Mother Average 9 (2.5) (50.7) Islam 42 (11.5) Poor 3 (0.8) Mother 12 (30.7) (64.1) (70.8) No 13 (3.6) Mother 234(64.1) Relative 16 (4.4) Others 3 (0.8) Yes 340 (93.2) No 23 (66.6) No 25 (6.8) Ever had a boy friend/girl friend gril friend Yes 22 (33.4) Both parent 265 (72.6) No 243 (66.6) Mother 51 (14.0) Age at first menses(girls) (0.0) Father 51 (41.4) 167 (90.3) (0.0.0) Father's Educati	10-14	137 (37.5)	Father	22 (6.0)
Sex Others $2 (0.5)^{\circ}$ Male 180 (49.3) Female 185 (50.7) Relationship with parents Female 185 (50.7) Relationship with parents Very good 323 (88.5) Good 30 (8.2) Good 30 (8.2) Christianity 323 (88.5) Average 9 (2.5) Islam 42 (11.5) Poor 3 (0.8) Mother Alive Who do you have access to Father Yes 352 (96.4) Father 112 (30.7) No 13 (3.6) Mother 234(64.1) Relative 16 (4.4) Others 3 (0.8) Yes 340 (93.2) Others 3 (0.8) No 25 (6.8) Ever had a boy friend/ girl friend girl friend Yes 122 (33.4) Father's 24 (6.6) Mother 51 (14.0) Age at first menses(girls) (verars) N=185 Kelative 25 (6.8) (verars) N=185 (-0 0 0.0.0) Relative 29 (7.9) >14 18 (9.7) None 29 (7.9) >14 18 (9.7) <t< td=""><td>>14</td><td>226 (61.9)</td><td>Mother</td><td></td></t<>	>14	226 (61.9)	Mother	
Male 180 (49.3) Relationship with parents Female 185 (50.7) Relationship with parents Very good 323 (88.5) Good 30 (8.2) Christianity 323 (88.5) Islam 42 (11.5) Poor 3 (0.8) Mother Alive Who do you have access to Yes 352 (96.4) No 13 (3.6) Mother Alive Who do you have access to Yes 352 (96.4) No 13 (3.6) Mother Alive 112 (30.7) Yes 340 (93.2) No 25 (6.8) Ever had a boy friend/ gif friend Yes 122 (33.4) Both parent 265 (72.6) No Stift friend Yes Relative 25 (6.8) (years) N=185 (Mother 51 (14.0) Age at first menses(girls) Relative 25 (6.8) (years) N=185 (starter's Education 10-14 167 (90.3) None 29 (7.9) >14 18 (9.7) Primary 66 (18.1) Senior	Mean=14.95±1.	73	Relative	41 (11.2)
Female 185 (50.7) Relationship with parents Religion Good 323 (88.5) Good 30 (8.2) Christianity 323 (88.5) Islam 42 (11.5) Mother Alive Who do you have access to Yes 352 (96.4) No 13 (3.6) Mother Alive Who do you have access to Yes 340 (93.2) No 25 (6.8) Yes 340 (93.2) No 25 (6.8) Both parent 265 (72.6) Father 122 (33.4) Both parent 265 (72.6) No 25 (6.8) Wers 122 (33.4) Nother 51 (14.0) Age at first menses(girls) (years) N=185 <10	Sex		Others	2 (0.5)
Religion ChristianityVery good $323 (88.5)$ Good $30 (8.2)$ $30 (8.2)$ Christianity $323 (88.5)$ Good $30 (8.2)$ 	Male	180 (49.3)		
Religion Good $30 (8.2)$ Christianity $323 (88.5)$ Average $9 (2.5)$ Islam $42 (11.5)$ Poor $3 (0.8)$ Mother Alive Who do you have access to Yes $352 (96.4)$ Father $112 (30.7)$ No $13 (3.6)$ Mother $234(64.1)$ Relative $16 (4.4)$ Others $3 (0.8)$ Yes $340 (93.2)$ No $25 (6.8)$ Ever had a boy friend/ Wes $340 (93.2)$ No $25 (6.8)$ Ever had a boy friend/ Both parent $265 (72.6)$ No $243 (66.6)$ Father $24 (6.6)$ No $243 (66.6)$ Mother $51 (14.0)$ Age at first menses(girls) (9.7) Relative $25 (6.8)$ (years) N=185 <10	Female	185 (50.7)	Relationship wi	ith parents
$\begin{array}{c cccccc} Christianity & 323 (88.5) & Average & 9 (2.5) \\ Islam & 42 (11.5) & Poor & 3 (0.8) \\ \hline \\ \mbox{Mother Alive} & & & & & & & & & & \\ Yes & 352 (96.4) & Father & 112 (30.7) & & & & & & & & \\ No & 13 (3.6) & Mother & 234(64.1) & & & & & & & & & \\ Rather Alive & & & & & & & & & & & & & & & & & & &$			Very good	323 (88.5)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Religion		Good	30 (8.2)
Mother Alive YesWho do you have access to Father112 (30.7) $234(64.1)$ RelativeNo13 (3.6)Father112 (30.7) $234(64.1)$ RelativeFather Alive Yes0 $3 (0.8)$ 234(64.1) RelativeYes340 (93.2)0 UthersNo25 (6.8)Ever had a boy friend/ girl friend YesRaised by who Both parent265 (72.6) $25 (6.8)$ NoAsised by who PatherYes122 (33.4)Both parent265 (72.6) $51 (14.0)$ NoAge at first menses(girls) 10^{-14} 127 (90.3)Relative25 (6.8)(years) N=185 <10 Primary66 (18.1) 10^{-14} 167 (90.3)None29 (7.9) $151 (41.4)$ Pathers' ClassTertiary119 (32.6)Junior $310 (84.9)$ Mother's Education None310 (84.9)Mother's Education None310 (84.9)None31 (8.5) 9 Primary82 (22.5) $Secondary$ Secondary102 (27.9)		323 (88.5)	Average	9 (2.5)
Yes $352 (96.4)$ Father $112 (30.7)$ No13 (3.6)Mother $234(64.1)$ Rather Alive0 $3 (0.8)$ Yes $340 (93.2)$ Others $3 (0.8)$ No $25 (6.8)$ Ever had a boy friend/ girl friend $girl friend$ Raised by whoYes $122 (33.4)$ Both parent $265 (72.6)$ No $243 (66.6)$ Father $24 (6.6)$ No $243 (66.6)$ Mother $51 (14.0)$ Age at first menses(girls) $(years) N=185$ Relative $25 (6.8)$ $(years) N=185$ Relative $29 (7.9)$ >14 $167 (90.3)$ None $29 (7.9)$ >14 $18 (9.7)$ Primary $66 (18.1)$ Secondary $310 (84.9)$ Mother's EducationJunior $55 (15.1)$ None $31 (8.5)$ Junior $55 (15.1)$ Primary $82 (22.5)$ Secondary $310 (84.9)$	Islam	42 (11.5)	Poor	3 (0.8)
Yes $352 (96.4)$ Father $112 (30.7)$ No13 (3.6)Mother $234(64.1)$ Rather Alive0 $3 (0.8)$ Yes $340 (93.2)$ Others $3 (0.8)$ No $25 (6.8)$ Ever had a boy friend/ girl friend $girl friend$ Raised by whoYes $122 (33.4)$ Both parent $265 (72.6)$ No $243 (66.6)$ Father $24 (6.6)$ No $243 (66.6)$ Mother $51 (14.0)$ Age at first menses(girls) $(years) N=185$ Relative $25 (6.8)$ $(years) N=185$ Relative $29 (7.9)$ >14 $167 (90.3)$ None $29 (7.9)$ >14 $18 (9.7)$ Primary $66 (18.1)$ Secondary $310 (84.9)$ Mother's EducationJunior $55 (15.1)$ None $31 (8.5)$ Junior $55 (15.1)$ Primary $82 (22.5)$ Secondary $310 (84.9)$	Mother Alive		Who do you hay	ve access to
No13 (3.6)Mother $234(64.1)$ RelativeFather Alive016 (4.4)Yes340 (93.2)0No25 (6.8)Ever had a boy friend/ girl friendRaised by whoYes122 (33.4)Both parent265 (72.6)NoPather24 (6.6)Mother51 (14.0)Relative25 (6.8)Wother51 (14.0)Relative25 (6.8)Vears) N=185<10		352 (96.4)	v	
Father AliveRelative16 (4.4)Yes $340 (93.2)$ Others $3 (0.8)$ No $25 (6.8)$ Ever had a boy friend/ girl friend $122 (33.4)$ Raised by whoYes $122 (33.4)$ Both parent $265 (72.6)$ No $243 (66.6)$ Father $24 (6.6)$ No $243 (66.6)$ Mother $51 (14.0)$ Age at first menses(girls)(years) N=185Relative $25 (6.8)$ (years) N=185 <10 $0 (0.0)$ Father's Education10-14167 (90.3)None $29 (7.9)$ >14 18 (9.7)Primary $66 (18.1)$ Secondary $151 (41.4)$ Secondary $151 (41.4)$ Respondents' ClassTertiary $119 (32.6)$ Junior $55 (15.1)$ SeniorMother's Education $31 (8.5)$ $yunior$ $55 (15.1)$ SeniorNone $31 (8.5)$ $yunior$ $55 (15.1)$ SeniorNone $31 (2.5)$ $yunior$ $55 (15.1)$ SeniorSecondary $102 (27.9)$ $yunior$ $55 (15.1)$ Senior	No		Mother	· /
Father Alive YesOthers $3 (0.8)$ Yes $340 (93.2)$ Ever had a boy friend/ girl friendNo $25 (6.8)$ Ever had a boy friend/ girl friendRaised by whoYes $122 (33.4)$ Both parent $265 (72.6)$ NoFather $243 (66.6)$ Mother $51 (14.0)$ Age at first menses(girls)Relative $25 (6.8)$ (years) N=185<10				
Yes $340 (93.2)$ NoEver had a boy friend/ girl friendRaised by whoYes $122 (33.4)$ Both parent $265 (72.6)$ No $243 (66.6)$ Father $24 (6.6)$ No $243 (66.6)$ Mother $51 (14.0)$ Age at first menses(girls) $(years) N=185$ Relative $25 (6.8)$ $(years) N=185$ Father's Education $10-14$ $167 (90.3)$ None $29 (7.9)$ >14 $18 (9.7)$ Primary $66 (18.1)$ Secondary $55 (15.1)$ Secondary $151 (41.4)$ Respondents' ClassTertiary $119 (32.6)$ Junior $55 (15.1)$ Mother's EducationNone $31 (8.5)$ Primary $82 (22.5)$ Secondary $102 (27.9)$	Father Alive			
No $25 (6.8)$ Ever had a boy friend/ girl friendRaised by whoYes $122 (33.4)$ Both parent $265 (72.6)$ No $243 (66.6)$ Father $24 (6.6)$ No $243 (66.6)$ Mother $51 (14.0)$ Age at first menses(girls)Relative $25 (6.8)$ $(years) N=185$ Father's Education10-14167 (90.3)None $29 (7.9)$ >1418 (9.7)Primary $66 (18.1)$ Respondents' ClassSecondary $151 (41.4)$ Respondents' ClassTertiary $119 (32.6)$ Junior $55 (15.1)$ SeniorMother's Education $31 (8.5)$ PrimaryNone $31 (8.5)$ $82 (22.5)$ Secondary $102 (27.9)$		340 (93.2)	0 41010	5 (0.0)
girl friendRaised by whoYes122 (33.4)Both parent265 (72.6)No243 (66.6)Father24 (6.6)No243 (66.6)Mother51 (14.0)Age at first menses(girls) (years) N=185 -10 Relative25 (6.8)(years) N=185Father's Education10-14167 (90.3)None29 (7.9)>1418 (9.7)Primary66 (18.1)18 (9.7)Secondary151 (41.4)Respondents' ClassTertiary151 (41.4)Senior310 (84.9)Mother's Education310 (84.9)310 (84.9)None31 (8.5)9rimary82 (22.5)Secondary102 (27.9)102 (27.9)101 (101 (101 (101 (101 (101 (101 (101			Ever had a bov	friend/
Raised by whoYes $122 (33.4)$ Both parent $265 (72.6)$ No $243 (66.6)$ Father $24 (6.6)$ No $243 (66.6)$ Mother $51 (14.0)$ Age at first menses(girls)Relative $25 (6.8)$ (years) N=185 <10 $0 (0.0)$ Father's Education $10-14$ $167 (90.3)$ None $29 (7.9)$ >14 $18 (9.7)$ Primary $66 (18.1)$ SecondarySecondary $151 (41.4)$ Respondents' ClassTertiary $119 (32.6)$ JuniorMother's Education $310 (84.9)$ None $31 (8.5)$ Primary $82 (22.5)$ Secondary $102 (27.9)$				
Both parent $265 (72.6)$ No $243 (66.6)$ Father $24 (6.6)$ No $243 (66.6)$ Mother $51 (14.0)$ Age at first menses(girls) (years) N=185Relative $25 (6.8)$ (years) N=185Father's Education $10-14$ $167 (90.3)$ None $29 (7.9)$ >14 $18 (9.7)$ Primary $66 (18.1)$ Respondents' ClassSecondary $151 (41.4)$ Respondents' ClassTertiary $119 (32.6)$ Junior $55 (15.1)$ Mother's Education $31 (8.5)$ Junior $310 (84.9)$ None $31 (8.5)$ Primary $82 (22.5)$ Secondary $102 (27.9)$	Raised by who		8	122 (33.4)
Father $24 (6.6)$ Mother $51 (14.0)$ Age at first menses(girls)Relative $25 (6.8)$ (years) N=185 <10 $0 (0.0)$ Father's Education $10-14$ $167 (90.3)$ None $29 (7.9)$ >14 $18 (9.7)$ Primary $66 (18.1)$ $8espondents' Class$ Secondary $151 (41.4)$ Respondents' ClassTertiary $119 (32.6)$ JuniorMother's Education $310 (84.9)$ None $31 (8.5)$ Primary $82 (22.5)$ Secondary $102 (27.9)$		265 (72.6)		
Mother $51 (14.0)$ $25 (6.8)$ Age at first menses(girls) (years) N=185 <10 $0 (0.0)$ Father's Education $10-14$ $167 (90.3)$ None $29 (7.9)$ $Primary$ >14 $18 (9.7)$ Primary $66 (18.1)$ $5 condary$ Respondents' Class $Junior$ $55 (15.1)$ $Senior$ Mother's Education $31 (8.5)$ $Primary$ $82 (22.5)$ $Secondary$ $102 (27.9)$				- ()
Relative $25 (6.8)$ (years) N=185<10			Age at first men	ses(girls)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Relative		8	(<u>B</u>)
$ \begin{array}{ccccc} {\bf Father's Education} & 10-14 & 167 (90.3) \\ None & 29 (7.9) & >14 & 18 (9.7) \\ Primary & 66 (18.1) \\ Secondary & 151 (41.4) & {\bf Respondents' Class} \\ Tertiary & 119 (32.6) & Junior & 55 (15.1) \\ Senior & 310 (84.9) \\ \hline {\bf Mother's Education} & & & \\ None & 31 (8.5) \\ Primary & 82 (22.5) \\ Secondary & 102 (27.9) \\ \end{array} $				0 (0.0)
None $29 (7.9)$ >14 $18 (9.7)$ Primary $66 (18.1)$ Espondents' ClassSecondary $151 (41.4)$ Respondents' ClassTertiary $119 (32.6)$ Junior $55 (15.1)$ Senior $310 (84.9)$ Mother's EducationSenior $310 (84.9)$ None $31 (8.5)$ Primary $82 (22.5)$ Secondary $102 (27.9)$ $102 (27.9)$	Father's Education	1	10-14	
Primary 66 (18.1) Secondary 151 (41.4) Respondents' Class Tertiary 119 (32.6) Junior 55 (15.1) Senior 310 (84.9) Mother's Education Senior 310 (84.9) None 31 (8.5) Primary 82 (22.5) Secondary 102 (27.9)	None	29 (7.9)	>14	
Secondary 151 (41.4) Respondents' Class Tertiary 119 (32.6) Junior 55 (15.1) Senior 310 (84.9) Mother's Education Senior 310 (84.9) None 31 (8.5) 9 Primary 82 (22.5) 5 Secondary 102 (27.9) 5	Primary			× ,
Tertiary 119 (32.6) Junior 55 (15.1) Senior 310 (84.9) Mother's Education 31 (8.5) Primary 82 (22.5) Secondary 102 (27.9)	Secondary	151 (41.4)	Respondents' C	lass
Mother's Education Senior 310 (84.9) None 31 (8.5) 9 Primary 82 (22.5) 8 Secondary 102 (27.9) 102 (27.9)	2			
Mother's Education None 31 (8.5) Primary 82 (22.5) Secondary 102 (27.9)	5		Senior	
Primary 82 (22.5) Secondary 102 (27.9)	Mother's Educatio	n		
Primary 82 (22.5) Secondary 102 (27.9)	None	31 (8.5)		
Secondary 102 (27.9)				
	Tertiary	150 (41.1)		

Table 1: Socio-demographic and reproductive characteristics of the respondents (N=365)

Table 1 showed that about two-thirds, 236(64.7%), of them were living with both parents with more than three-quarters having good relationship with both parents. About two-thirds, 234(64.1%), of the respondents

claimed they have good access to their mothers while just about a third, 112(30.7%), enjoyed good access to their fathers. A third of the respondents, 122(33.4%), ever had a boy/girl friend. In Table 2, more than three quarters of them said their parents approved of, knew their friends and knew their movement in and out of the house. Similarly, more than three-quarters, 341(93.4%), were desirous of winning academic prize in the pursuit of their career. More than three-quarters, 321(87.9%), were not involved in any form of religious activities.

Variable	/ariable Frequency (%)		Frequency (%)		
Discuss pubertal/maturity		Parent appro	i i i i i j		
issues with anyone	-	friends	-		
Yes	137 (37.5)	Yes	316 (87.4)		
No	228 (62.5)	No	49(12.6)		
If yes, with who		Parent know when	re you		
Mother	48 (13.2)	are during free time			
Father	7 (1.9)	Yes	306 (83.8)		
Sibling	20 (5.5)	No	59 (16.2)		
Friend	57 (15.6)				
Relative	5 (1.4)	Like to win prize f	or		
		academic excellence			
Discuss effect of early sex		Yes	341 (93.4)		
with anyone	·	No	24 (6.6)		
Yes	102 (27.9)				
No	263 (72.1)	Won prize or reco	gnition		
		For academic excell	•		
If yes with whom n=102		Yes	276 (75.6)		
Parent	19 (18.6)	No	89 (24.4)		
Friend	67 (65.7)				
Sibling	14 (13.7)	Involvement in re	ligious		
Teacher	2 (2.0)	activities	8		
		Not at all	341 (93.4)		
Discuss effect of Tee	nage	Slightly	11 (3.0)		
pregnancy with anyone		Really involved	13 (3.6)		
Yes	94 (25.8)	y			
No	271 (74.2)	Mother/Father know	most		
	_, _ (,)	of your friends			
If yes, with whom n	=94	Yes	334(91.5)		
Mother	10 (10.7)	No	31(8.5)		
Friend	69 (73.4)	110	51(0.0)		
Sibling	13 (13.8)				
Teacher	2 (2.1)				
Rule at home guidin	g time				
of return and leaving					
Yes	229 (81.9)				
No	66 (18.1)				

Table 2: Socio-demographic and reproductive characteristics of the respondents... cont'd

Table 3 shows sexual exposure among the respondents. Less than one-quarter, 59(16.2%), ever had sex with anyone and out of this, more than two-thirds, 40(67.8%), had early sexual debut. However, the overall prevalence of early sexual debut among the respondents was about 11%. The mean age of sexual debut among the respondents was 13.10 ± 2.82 , while the mean age for early sexual debutants was 11.68 ± 1.98 . The mean number of sexual partners among the respondents was found to be 2.44 ± 1.99 and about two-thirds, 38(64.4%), of them had between 1-2 sexual partners.

Variable	Frequency (%)	N=365
Ever had sex with anyone before		
Yes	59 (16.2)	
No	306 (83.8)	
Age at sexual debut (years) n=59		
<10	6(10.2)	
10-14	34(57.6)	
>14	19 (32.2)	
Mean= 13.12±2.80		
Early sexual debut (years) n=40		
<10	6 (15.0)	
10-14	34 (85.0)	
Mean= 11.68±1.98		
Number of sexual partners n=59		
1-2	38 (64.4)	
3-5	14 (3.8)	
≥6	7 (1.9)	
Mean=2.44±1.99		
First person to have sex with n=59		
Friend	56 (94.9)	
Husband	1 (1.7)	
Teacher	2 (3.4)	
Circumstances surrounding first		
sexual exposure n=59		
Willingly	28 (47.5)	
Unwillingly	14 (23.7)	
Influence of friends	12 (20.3)	
Influence of alcohol	3 (5.1)	
Others	2 (3.4)	
Have most of your friends had sex before		
Yes	91(24.9)	
No	274 (75.1)	

Table 3: Sexual exposure among the respondents

Also, in Table 3, more than three-quarters, 56(94.9%), of those with sexual exposure had it with either their boy or girl friend. Again, while 2(3.4%) of them claimed they had their first sexual experience with their school teachers, only a respondent said she had her first sex with her husband at the age of 15 years. On the circumstances surrounding first sexual exposure among the early sexual debutants, about half 28(47.5%), of them said it was willingly, less than a quarter, 14(23.7%) said it was unwillingly. Although, very few of them, 3(5.1%), said it was under the influence of alcohol; almost a quarter, 12(20.3%), said it was due to the influence of friends. In the same vein, a quarter, 91(24.9%), of the respondents had friends who engaged in sex.

In Table 4, the mean age of early sexual debut for males (11.34 ± 2.058) was lower than that of the females (12.55 ± 1.508) , but the observed difference in means was not statistically significant (p=0.087). However, within the gender, the mean age of early sexual debut was generally lower than the mean chronological age of either the males or females. This observed difference was statistically significant for males (p=0.000) and females (p=0.006).

Age 15.25±1.740 Female 14.66±1.693 Age of Sexual debut 13.21±3.036 Female 12.75±1.603 Age of early sexual debut 13.21±3.036	180 185 47 12	10.801 0.258	0.001 0.613
Female 14.66±1.693 Age of Sexual debut 13.21±3.036 Female 12.75±1.603	185 47 12		
Age of Sexual debut 13.21±3.036 Male 12.75±1.603	47 12		
Male 13.21±3.036 Female 12.75±1.603	12	0.258	0.613
Female 12.75±1.603	12	0.258	0.613
		0.258	0.613
Age of early sexual debut			
inge of early sexual debut			
Male 11.34±2.058	29		
Female 12.55±1.508	11	3.092	0.087
Female			
Age at menses 12.92 ± 0.793	12		
Age at sexual debut 12.75±1.603	12	0.352	0.732
Female			
Age at menses 12.82 ± 1.16	11		
Age at early sexual debut 12.55 ± 1.508	11	0.539	0.602
Male			
Age 15.03±1.973	29		
Age at early sexual debut 11.34±2.058	29	7.022	0.000
Female			
Age 14.82±1.250	11		
Age at early sexual debut 12.55±1.508	11	3.508	0.006
Male			
Age 15.40±2.050	47		
Age at sexual debut 13.21±3.036	47	4.317	0.000
Female			
Age 14.92±1.240	12	3.606	0.004
Age at sexual debut 12.75±1.603	12		

As shown in Table 5, gender of the respondents was found to have association with early sexual debut as more males than females were found to have had early sexual debut. This observed difference between male and female sexes was statistically significant (OR=3.04, 95%CI=1.40-6.72, p=0.001, $\varphi=0.16$). Also, having friends who engage in sex and intake of alcohol were also significantly associated with early sexual exposure. About a quarter, 22(24.2%), of the respondents who had friends who engaged in sexual activities also had early sexual debut compared with less than one-tenth, 18(6.6%), among those whose friends did not engage in sex. This observed difference was found to be statistically significant (OR=4.53, 95%CI=2.19-9.42, p=0.0000032, φ =0.24). Also, more than two-thirds, 10(66.7%), of those who took alcohol had early sexual exposure compared with more than three-quarters,

320(91.4%), of those who did not take alcohol with no early sexual exposure. This observed difference was also found to be significant (OR=21.33, 95%CI=6.17-77.59, p=0.0000002, $\varphi=0.37$).

Being in a junior or senior class also had no association with early sexual debut as about a tenth of respondents in each of junior or senior class had engaged in early sex and so the observed difference was not statistically significant (OR=0.79, 95%CI=0.26-2.23, p= 0.630). Also, respondents' involvement in religious activities had no association with early sexual exposure as more than three-quarters, 289(90.0%), of those who did not partake in religious activities had no early sexual debut. However, only about a fifth, 8(18.2%), of those involved in religious activities had early sex. This difference was not statistically significant (OR=2.67, 95%CI=0.78-4.99, p=0.120)

Variable	Early sexual Yes (%)	exposure No (%)	χ^2	OR*	95%CI	p value o o	
Age (years)							
<10	0(0.0)	2(100.0)	0.25	0.00	0.00-33.99	1.000* 0.03	
≥ 10	40(11.0)	323(89.0)					
Sex							
Male	29(16.1)	151(83.9)	9.66	3.04	1.40-6.72	0.001 0.16	
Female	11(5.9)	174(94.1)					
	()	. ,					
Class in school							
Junior	5(9.1)	50(90.9)	0.23	0.79	0.26-2.23	0.630 0.03	
Senior	35(11.3)	275(88.7)					
	(-)	()					
Leaving with							
Parent	35(11.2)	277(88.8)	0.01	0.96	0.33-2.98	1.000* 0.005	
Relative	5(11.6)	38(88.4)					
	. ,	. ,					
Mother Alive							
Yes	40(11.4)	312(88.6)	1.66	0.00	-	0.375* 0.07	
No	0(0.0)	13(100.0)					
Father Alive							
Yes	39(11.5)	301(88.5)	1.33	3.11	0.43-63.42	0.501* 0.06	
No	1(4.0)	24(96.0)					
Friends engage in s	sex						
Yes	22(24.2)	69(75.8)	21.70	4.53	2.19-9.42	0.0000032 0.24	
No	18(6.6)	256(93.4)					
Alcohol intake							
Yes	10(66.7)	5(33.3)	49.75	21.33	6.17-77.59	0.0000002 * 0.37	
No	30(8.6)	320(91.4)					
Involvement in religious							
activities	igious						
Yes	8(18.2)	36(81.8)	2.67	2.01	0.78-4.99	0.120* 0.09	
No	32(10.0)	289(90.0)	2.07	2.01	0.78-4.99	0.120 0.09	
NO Desire to win	52(10.0)	209(90.0)					
academic							
prize Yes	36(10.6)	205(80.4)	0.86	0.59	0.18-2.17	0.318* 0.05	
Y es No		305(89.4)	0.80	0.59	0.18-2.1/	0.318** 0.05	
	4(16.7)	20(83.3)	~ · .				
OR= Odds Ratio	*Fishers exact	φ= Phi co-efi	icient				

Table 5: Factors associated with early sexual debut among the respondents

Discussion

The mean age of respondents in this study was 14.95 ± 1.73 . This was not surprising as the mean age fell within the recognized school age of 5-15 years and besides our study population was secondary school students. However, this was lower than the mean age obtained in a similar study in Ethiopia with a mean age of 19.4 ± 2.7 .¹³ Though, in the two studies, more than half of the respondents were in the age group 15-19 years, the difference in the mean age could be due to the fact that the Ethiopian study was among youths while this study focused on secondary school students. Besides, the Ethiopian study was a comparative cross-sectional study of rural and urban areas while this study is simply cross-sectional.

Less than one quarter, 16.2%, of the respondents in this study had sexual exposure with more than two-thirds, 67.8%, of them having early sexual debut. This showed than more than three-quarters, 83.8%, of the respondents had no sexual experience. This was lower than the value obtained among youths in Ethiopia where half of

them have ever had sex in both rural and urban communities' studied.11 The difference between the Ethiopia study and this study could be due to the fact that this study was among in-school adolescents while the one in Ethiopia was conducted among youth. It is also lower than the 39% obtained in a study among South African youths by Khaagelani et al where early sexual debut was pegged at 16 years.¹⁴ Similarly, it was found to be lower than the 48.7% reported to be sexually active in a study in Tanzania by Mmbaga et al.⁴ Though the Tanzania study and this study were conducted among in-school adolescents in secondary school, however, the proportion of males sampled were much higher in the Tanzania study than this study. While males made up 168(53.2%) in the Tanzania study, they constituted 49.3% in this study; and males tend to be more involved in early sexual debut than the females.

However, the findings in this study were similar to those of Fatusi et al in a study among Nigeria adolescents where more than three-quarters, 80.2%, of them reported having never had sex.⁶ This could be due to the fact that the Nigerian society/culture views early sexual exposure among adolescents as being morally wrong. Besides, some of the students may not want to disclose this especially the females.

On the circumstances surrounding the first sexual exposure, about half, 47.5%, said they willingly had the experience, while almost quarter, 23.7%, said it was not willingly done. This was lower than the value obtained in a study by Baumgartner et al in Jamaica where about one-third said they were forced to participate in their first sexual experience.¹ The reason for the difference could be that the Jamaican study was a matched case-control between currently pregnant and sexually experienced but never pregnant controls.

Though the mean age of sexual debut among the respondents was 13.10±2.82, the mean age of the early sexual debutants was 11.68±1.98. This study also showed that the mean age of sexual debut was lower among females (12.75 ± 1.603) than their male counterparts (13.21 ± 3.036) . However, the mean age of early sexual debut was lower among males (11.34±2.058) than females (12.55±1.508). However, the observed difference was not statistically significant (p>0.05). This was not at variance with the findings obtained by Mmbaga et al in Tanzania where the mean age at sexual debut for males (14.7±2.5 years) did not differ from that of females $(14.6\pm2.0 \text{ years})$ with a p value of 0.416.4 However, these values were lower than the mean age of sexual debut obtained in the study in Ethiopia which obtained 16.8±2.55. Again, the study in Ethiopia was a comparative study of rural and urban areas while this study and that in Tanzania were cross-sectional studies conducted among secondary school students in a semi-urban/municipal area.

This study found that respondents' sex/gender was associated with early sexual exposure as more males than females had their first sexual experience at or before the age of 14 years. This observed difference was statistically significant with a p value of 0.001. This was not unexpected as males are more adventurous and desirous of trying new experiences as compared to the female gender. Also, males are more likely to report their first sexual exposure than females. This was buttressed in another study in Tanzania where 82.0% of males reported their sexual debut status as against 33.0% among the females.¹⁵ Also, having friends who engaged in sex and the intake of alcohol were also found to have association with early sexual exposure with p<0.05. This is so because these are social vices that can influence an adolescent towards bad behavior. Intake of alcohol, especially if excessive, can cause disorientation and loss of self-control. An adolescent, regardless of the sex difference, moving with friends who engage in sexual activities will also be negatively influenced towards engaging in pre-marital sex. A similar finding was obtained in Tanzania by Mmbaga et al where alcohol intake and having friends who engaged in sex had significant association with sexual debut.⁴ Similarly, in a study in Ethiopia by Mazengia et al, those who drink alcohol were two times (adjusted OR=2.16, 1.12-4.18) more likely to initiate sexual intercourse before the age of 18.13 However, the study pegged early age of sexual initiation as being < 18 years compared with ≤ 14 years in this study. The strength of association, also established using the phi coefficient, showed that alcohol intake has the highest value compared with the other factors.Indeed, of all the significant risk factors for early sexual exposure, the intake of alcohol was also found to have the highest phi co-efficient (φ = 0.37) which implies the strongest strength of association for early sexual debut among the students.

Conclusion/recommendation

Male gender, having friends who engaged in sex and the intake of alcohol were found to be risk factors for early sexual exposure among the students. The presence of these risk factors and the high prevalence of early sexual exposure among the students is a worrisome trend. Exposure to risk factors for early sexual exposure needs to be curtailed. Sale of alcohol to adolescents and alcohol sales outlet proximal to school environments need legislative restriction; sex education should be incorporated into curriculum of secondary schools. Parents have a moral duty to sex-educate their children on dangers of early sexual debut; and to censor the kind of friends their wards keep to avert negative social influence on them. Lastly, there is a dire need for urgent multiple intra-sectoral and inter-sectoral interventions to stem the trend and reduce the devastating negative psycho-social and health sequels of adolescents' early sexual debut.

Conflict of interest

None declared by the authors.

References

1. Baumgartner JN, Geary CW, Tucker H, Wedderburn M. The Influence of early sexual debut and sexual violence on adolescent pregnancy: A matched case-control study in Jamaica. *Int Persp on sexual and reproductive health* 2009;35(1)

2. Mazengia F, Worku A. Age at sexual initiation and factors associated with it among youths in North-East Ethiopia. *Ethiop. J. Health Dev.* 2009;23(2):154-162. PubMed

3. Alison P, Wight D, Henderson M, West P. Does early sexual debut reduce teenagers' participation in tertiary education? Evidence from the SHARE longitudinal study. *J Adolesc*.2010;33(5-3):741-754. PubMed

4. Mmbaga EJ, Leonard F, Leyna GH. Incidence and predictors of Adolescent's early sexual debut after three decades of HIV interventions in Tanzania: A Time to Debut Analysis. *PLos One* 2012;7(7): e41700. PubMed

5. Ekundayo OJ, Dodson-Stallworth J, Roofe M, Aban IB, Bachmann LH, Kempf MC et al. The determinants of sexual intercourse before age 16 years among rural Jamaican adolescents. *The Scientific World Journal*. 2007;7: 497-503.

6. Fatusi AO, Blum RW. Predictors of early sexual initiation among a nationally representative sample of Nigerian adolescents. *BMC public health*.2008; 8:136.

7. Mott FL, Fondell MM, Hu PN, Kowaleski-Jones L,

Menaghan EG. The determinants of first sex by age 14 in a high-risk adolescent population. *Family planning perspectives* 1996; 28:13-18.

8. Lohman BJ, Billings A; Protective and risk factors associated with adolescent boys' sexual debut and risky behavior; *Journal of youth Adolescence* 2008; 37:723-735.

9. Nigeria-KPMG. Nigeria-Country Profile. Available at www.kpmg.com/Africa. Last accessed on 1/11/2014

10. Slide Share. Profile of Ekiti State. Available at www. slideshare.net/Ekiti state . Last accessed on 1/11/2014

11. Bamigboye EA. Principles of Demography. In: A companion of Medical Statistics. 2nd ed. Ibadan, Nigeria. Folbam publishers; 2008:194-195.

12. Araoye MO. Subjects Selection. In: Research Methodology with statistics for Health and Social sciences. Nigeria. Nathadex Publishers; 2004:117-119.

13. Mazenga F, Worku A. Age at sexual initiation and factors associated with it among youths in North-East Ethiopia. *Ethiopia J Health Dev* 2009; 23(2):154-162

14. Khangeilani Z, Geofrey S, Thabile K, Thambile M, Thomas R, Ntombizodwa M. Age at sexual debut: A determinant of multiple partnership among South African youth. *AJRH* 2010; 14(2): 46-54. PubMed

15. Lugoe WL, Klepp KI, Skutle A. Sexual debut and predictors of condom use among secondary school students in Arusha, Tanzani. *AIDS Care* 1996; 8(4):443-452. PubMed