

Correlates of sexual initiation among adolescent and youth in Addis Ababa, Ethiopia: a community based cross sectional study

Abstract

Objectives: Initiation of sexual intercourse at an early age contributes to vulnerability for unintended pregnancy and HIV/AIDS. In Ethiopia, unmarried, sexually active youth have the highest risk of HIV infection. This study attempted to examine correlates of sexual initiation among unmarried youth in Addis Ababa.

Methods: This was a community based cross-sectional study. A multistage cluster sampling method was implemented to identify respondents. A pre-tested, structured questionnaire was used to collect data in a face to face interview. Stepwise multivariable logistic regression was performed to calculate for adjusted odds ratios at 95% confidence interval and a p-value of 0.05 was used to identify variables independently correlated with sexual initiation.

Results: Data was collected from 686 unmarried youth, aged 15-2years. Mean age of sexual debut was 17.5, and the proportion of sexual initiation was 49.3%. Using multivariable logistic regression, important correlates of sexual initiation were found, namely low parental monitoring [AOR=1.65, 95% CI(1.08-2.53)], current consumption of alcoholic beverages [AOR=3.8, 95% CI(2.59-5.59)], and perceived peer sexual debut [AOR=1.52, 95% CI(1.03- 2.24)].

Conclusion: Low parental monitoring, alcoholic beverage consumption and peer sexual debut were important correlates of sexual initiation. Youth sexual and reproductive health programs focused on addressing parent-youth monitoring and communication; and risky behaviours can be of paramount importance.

Keywords: adolescent, sex, parents, ethiopia

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Introduction

Nearly one fifth(17.5%) of the world's inhabitants are adolescents aged 10–19years, and in developing nations, an even higher proportion(23%).¹ Early sexual debut has been associated with increased risks of unwanted pregnancy and sexually transmitted infections.² In Ethiopia, adolescents and young people age 10 to 24 make up 30% of the total population, and the median age of sexual debut for girls is 16 and for boys is 20.² Unmarried, sexually active women have the highest risk of HIV infection, a 9% prevalence rate.² Thirteen percent of women aged 15-19 in Ethiopia, and 3% in Addis Ababa, have begun childbearing³ and have the highest unmet need for family planning.⁴

Studies have found a multitude of factors linked to early sexual initiation among youth. These are mainly lack of education,^{5,6} parental-youth connectedness,⁷⁻¹² risky behaviours.⁵⁻¹³ Studies also show that cultural taboo and shame in discussing openly sexual health matters as a factor especially in an Ethiopian community.⁶⁻⁹ Other risk behaviours such as substance use was also associated with early sexual initiation.^{6,13-16}

In Addis Ababa, youth and adolescent health problems remain a public health challenge, and early sexual commencement contributes to it significantly.¹⁷ Even though the existing literature shows a number of variables that might be correlated with early sexual debut,

this study tried to explore variables which previously were not assessed adequately focused on parental roles namely 'parental-youth monitoring and 'parental-youth communication'. Identifying parental risk factors is of paramount importance as adolescent leaving at home with their parents could receive guidance on the sexual health risks and behaviours. Therefore, as part of the effort to better understand youth sexual practices, this study explored the correlates of sexual initiation among adolescent and youth.

Methods

A community based cross-sectional study was conducted in Addis Ababa, August 15 to 30, 2017. The study area was Yeka, the second most populous sub-city in Addis Ababa, with a total of thirteen woredas (clusters within a Sub-city). The total population in the Sub-city is 341,355, of which 96,480 are in the age group 15-24 of which 57,271 are females. There are 90,956 households, with an average of 3.8 persons per household.¹⁸

Sample size and sampling procedure

Sample size was computed using a single population proportion formula - 95% confidence interval, 5% margin of error and prevalence of 30%(unprotected sex among unmarried youth age 20-24, Ethiopia),¹⁹ a design effect of 2, and 10% non-response rate. The final sample size was 711 respondents.

Multistage cluster sampling technique was used to identify the respondents. On the first stage, 3 Woredas were selected out of 13 by lottery method. Then Ketenas (smaller clusters within Woredas) were selected using lottery method. A census was conducted to identify number of unmarried youth within those Ketenas. Proportional to size allocation of number of households which makes up the final sample size was calculated for the selected Ketenas. The total number of households in the 3 chosen Woredas was 20,483, of which woredas 5, 7, and 8 had 8,000, 5,888, and 6,595 households, respectively. Proportional allocation of the total number of households yielded a sample size of 278, 204, and 229 unmarried youths for ketenas in woredas 5, 7, and 8 respectively. Within the identified Ketenas, lottery was used to select the targeted households using systematic random sampling. A revisit to a household was made for unavailable respondents before moving on to the house next door.

A questionnaire composed of closed-ended questions was first prepared in English language, translated to Amharic version and back. Pretested, structured Amharic version of the questionnaire was used to collect data. The questionnaire was designed to assess the extent of early sexual initiation and its correlates, mainly socio-demographic characteristics, parental-youth communication and monitoring, youth's and peer perceived risk behaviour, and youth's knowledge and attitude on sexual and reproductive health issues. Twenty college students (10 males and 10 females) collected the data, and supervision was carried out by one supervisor and the principal investigator. The interviews were conducted in a private place around a household with a same sex interviewer to get a more open response, as some of the questions could be considered personal and sensitive.

The variable 'Parental monitoring' was measured using 5 parental monitoring and control related questions. The respondents were asked about how much their parents know of their activities. Respondents who scored $\geq 50\%$ were determined as having a high level monitoring/control.²⁰ The variable Parent-youth communication as assessed by frequency of information exchange on sexual and reproductive health issues in the previous 12 months. Data was entered, cleaned, and analyzed using SPSS version 20. Crude and adjusted odds ratio with 95% confidence interval was calculated in binary and multivariable logistic regressions. A binary logistic regression was implemented first and a p value of 0.2 was used to identify variables correlated with the outcome variable, and further analysis was conducted in multivariable logistic regression, a p value of 0.05 was used to identify independently correlated variables.

Ethics approval and consent to participate

Ethical clearance was obtained from the Institutional Review Board of Jigjiga University, Directorate of Research, Publication and Technology Transfer. All respondents underwent informed consent for participation in the study.

Results

Socio-demographic characteristics

Of the total of 711 unmarried youths targeted for the study, 686(96.5%) responded. Over half (52.5%, N=360) of the participants were female. The mean age was 18.97years, standard deviation 2.8. Most (67.1%) of the participants were 15-19years old, 435(63.4%) completed secondary school education, and 431(62.9%) of youths were in school. Most (87.5%) lived with their parents. Majority 430(62.7%) of the participants earned less than one hundred Birr

(Ethiopian currency) per month, 120(17.5%) earned 100-300 Birr, 50(7.3%) earned 301-500 Birr, and the rest earned above 500 Birr. As to the educational level of parents, 250(51.9%) of the respondents' mothers had an above 12th grade educational level, 157(32.6%) a secondary school, and 34(7%) elementary and junior school, whereas the rest could only read and write. As to respondents' fathers' educational levels, 294(62.4%) had above 12th grade educational level, 139(29.5%) had a secondary school educational level, 23(4.9%) elementary educational and junior school educational level whereas the rest could only read and write.

a. Youth and peer risk behaviour

Three hundred thirty eight(49.3%) of the participants had initiated sexual practice, among which 183(54.1%) were male and 155(45.8%) were females. The mean age of sexual debut was 17.5, standard deviation 1.5. As to risk behaviours, 161(23.5%) chewed khat(*Catha edulis*), a plant whose main constituent is Cathinone, which has a chemical structure similar to that of amphetamine;²¹ and 269(39.2%) currently drank alcoholic beverages. More than half 367(53.5%) of the participants reported that their peers have initiated sexual activity (Table 1).

Table 1 Socio-demographic characteristics of unmarried youth, Addis Ababa, August 2017

Variables	Male n(%)	Female n(%)	Total n(%)
Age			
15-19	205(29.5)	255(37.2)	460(67.1)
20-24	121(17.6)	105(15.3)	226(32.9)
Educational level			
Read and write only	9(1.3)	14(2)	23(3.4)
Elementary(1-8)	62(9)	71(10.3)	133(19.4)
Secondary(9-12)	197(28.7)	238(34.7)	435(63.4)
Above grade 12	58(8.5)	37(5.4)	95(13.8)
Occupation			
In school	217(31.6)	214(31.2)	431(62.9)
Out of school	19(2.8)	74(10.8)	93(13.5)
Working	90(13.2)	72(10.4)	162(23.6)
Living arrangement			
With parents	297(43.3)	303(44.1)	600(87.5)
Other †	29(4.2)	57(8.3)	86(12.5)

† sibling, relative, friend

b. Parent-Youth Communication and parental monitoring

Parental monitoring, as measured by youth perception of parental control, shows that, most(61%) of the youth's parents know where youth is going before going out and 356(59.3%) of the youth's parents know whom youth is going to be before going out. Generally, perceived level of parental-youth monitoring was high among 388(64.7%) of youth (Table 3).

Almost half 284(47.3%) of respondents have never had discussion with one of their parents or adults at home on the topic of HIV/AIDS or other STDs. On the topic of unintended pregnancy, 356(59.3%)

never had discussion. Most 301(72.9%) of the unmarried youth who have had discussions on at least one of the sexual health topics in the year before felt that the information exchange was in the form of open discussion whereas the rest felt it was a one way communication or warning (Table 4).

c. Correlates of sexual initiation

Up on binary logistic regression, predictor variables correlated with sexual initiation were: higher monthly income, lower maternal

educational status, lower parental monitoring and risk behaviours of youth, specifically drinking alcohol and perceived peer sexual initiation. A stepwise backward multivariable logistic regression was implemented to identify factors independently correlated with the outcome variable. Accordingly youth who perceived their peers have commenced sexual practices [AOR 1.52(1.03–2.24)], youth who had low parental monitoring [AOR = 1.65(1.08– 2.53)], and youth who consumed alcoholic beverages [AOR=3.80(2.59–5.59)] were more likely to have initiated sexual practices (Table 5).

Table 2 Youths’ and their peers’ perceived risk behaviour of among unmarried youth, Addis Ababa, August 2017

Characteristics	Youth risk behavior n(%)	Perceived peer risk behavior n(%)
Ever had sexual intercourse		
Yes	338(49.3)	367(53.5)
No	348(50.7)	205(29.9)
Do not know		114(16.6)
Chew Khat currently		
Yes	161(23.5)	239(34.8)
No	525(76.5)	404(58.9)
Do not know		43(6.3)
Drink alcohol currently		
Yes	269(39.2)	253(36.9)
No	417(60.8)	390(56.8)
Do not know		43(6.3)
Smoke cigarettes currently		
Yes	65(9.5)	100(14.6)
No	621(90.5)	544(79.3)
Do not know		42(6.1)
Watch porn currently		
Yes	152(22.2)	203(29.6)
No	534(77.8)	374(54.5)
Do not know		109(15.9)

Table 3 Parental monitoring among unmarried youth, Yeka sub-city, Addis Ababa August 2017 (n=600)

Parental monitoring variables	N(%)
Youth expected to notify if going to be home late	314(52.3)
Parents know what youth does with spare time	360(60.1)
Parents know where youth is before going out	366(61)
Parents know whom youth is going to be with before going out	356(59.3)
Parents know who youths’ friends are	491(81.8)

Table 4 Parent-Youth communication on selected sexual and reproductive health issues, Yeka sub-city, Addis Ababa, August 2017 (n=600)

Frequency of discussion	Discussion topic			
	HIV/AIDS or STDs N(%)	Unintended pregnancy N(%)	Sexual debut N(%)	Contraceptives or condoms N(%)
Never	284(47.3)	356(59.3)	310(47.7)	397(66.1)
Rarely	84(14)	78(13)	83(13.9)	59(9.8)
Sometimes	185(30.8)	132(22)	153(25.5)	113(18.8)
Often	17(2.8)	16(2.6)	21(3.5)	8(1.3)
Very often	30(5)	18(3)	33(5.5)	23(3.8)

Table 5 Correlates of sexual initiation of among unmarried youth, Addis Ababa, August 2017

Variables	Initiated sex		Crude OR	Adjusted OR
	Yes	No	95% CI	95% CI
Age				
15-19	184	276	1	1
20-24	154	72	3.20(2.29-4.49)	2.65(1.75-4.00)*
Educational status				
Read and write only	11	12	1	
Elementary & Junior(1-8)	61	72	0.92(0.38 – 2.24)	
Secondary(9-12)	258	177	1.59(0.68 – 3.68)	
Above grade 12	65	30	2.36(0.93 – 5.96)	
Living arrangement				
With both parents	235	190	1	
With father only	18	10	1.35(0.60 – 2.99)	
With mother only	17	21	0.60(0.31 – 1.18)	
Alone	52	23	1.69(1.00 – 2.87)	
With relatives	55	47	0.87(0.57 – 1.35)	
Mother's educational status				
Read and write only	25	15	1.20(0.64 – 2.56)	
Elementary & Junior school(1-8)	25	9	2.14(0.96 - 4.78)	
Secondary school(9-12)	79	78	0.78(0.52 - 1.16)	
Above grade 12	141	109	1	
Monthly income(n = 686)				
< 100	212	218	1	
100-300	86	34	2.60(1.67 – 4.03)	
301-500	29	21	1.42(0.78 – 2.56)	
> 500	68	18	3.88(2.23 – 6.75)	
Perceived prenatal monitoring				
High	148	240	1	1
Low	127	86	2.39(1.70-3.37)	1.65(1.08-2.53)*
Drinking currently				
No	149	268	1	1
Yes	189	80	4.24(3.05-5.90)	3.80(2.59 – 5.59)*
Perceived peer sexual initiation				
No	89	116	1	1
Yes	192	175	1.43(1.01-2.01)	1.52(1.03 – 2.24)*

*Statistically significant at P value <0.05

Discussion

In this study we explored the extent of sexual initiation among adolescents and youth living in Addis Ababa. The extent of sexual initiation was 49.3%, which is lower to what has been found in similar studies conducted in Benin(51%) and Mozambique(61%),^{22,23} but higher compared to a study conducted in Bahirdar, Ethiopia.²⁴ Age of sexual debut was relatively higher compared to studies from other African countries such as Kenya, Benin, and Mozambique.^{22,23} With regard to sex, in this study youth who have initiated sexual practice were 183(54.1%) males and 155(45.8%) females, which is higher than that reported in a study done in Mauritius(30% male Vs 9.7% female)²⁵ but lower than that reported in Cote D'Ivoire(78% male Vs 67% female).²⁶⁻²⁸ Not surprisingly, elder youth were more likely to report sexual practice, owing to the fact that as age increases, there is more physical maturity and more sexual desire resulting in sexual exposure.^{22,27,28}

Alcohol consumption was a powerful predictor of sexual debut, possibly due to the reason that alcohol could have an effect on self control of youth. In this study, also, youth who consumed alcoholic beverages were more likely to have commenced sexual practice. Studies conducted in Mauritius and Nigeria support this finding that youth who drink alcohol were more likely to initiate sexual intercourse before 18 years of age.^{25,29} Even though youth practiced chewing khat, a habit which is normally followed by drinking, khat chewing was not independently correlated with sexual initiation. This study also found a significant association between peer influence and sexual initiation, as youth who perceived that their peer had initiated sexual intercourse were more sexually active, which is in concordance with a study done in Nigeria.²⁹ Studies show that due to strong peer affiliation, perception of peers being sexually active serves as a motivational factor for youth to be sexually experienced too.³⁰

Compared to those youth who had a high level of parental monitoring, those who did not were more likely to initiate sex. Reports from other studies were in concordance, where greater amounts of parental monitoring was associated with a higher age at adolescent sexual debut and increased self-efficacy with partner negotiation and condom use.^{7,10,12,15} This finding is also further supported by the growing evidence that various parenting dimensions, such as connectedness or love, behavioural control or monitoring, and parent-child communication are positively associated with reduced levels of risk-taking behaviour among youth.^{7,20,31}

In conclusion, the magnitude of early sexual initiation was relatively lower as compared to studies conducted in other settings. Male youth reported more sexual activity. Lower parental monitoring was correlated with early sexual initiation. Youth involved who consumed alcoholic beverages were more likely to have initiated sexual practices, and peer sexual initiation was also an important correlate of sexual debut. Youth sexual and reproductive health programs aimed at regulating youth alcohol consumption, parental monitoring or supervision of youth and education on peer influence on risky behaviours are of paramount importance.

Perceived parental and peer factors were assessed based on information reported by youth only. The variables 'condom use' and 'number of sexual partners' were not assessed in this study due to the sensitive nature of the question for a face to face interview. Study participants may have under-reported commencement of

sexual practice due to social desirability bias. These limitations might be better addressed with a self administered questionnaire which provides confidentiality regarding these sensitive questions.

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Declaration of interest

The author declares no conflict of interest.

Availability of data and material

All data generated or analyzed during this study is available on request from the corresponding author.

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