

# Does exposure to sexually explicit films predict sexual activity of the in-school youth? Evidence from Addis Ababa high schools

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## Abstract

**Background:** Sexually explicit media are textual, visual, or aural materials that depict sexual behaviors, acts or that expose the reproductive organs of the human body through movies, internet etc. Nowadays, exposure of urban youth particularly to visual media of such content is argued to be a factor leading to early and risky sexual behavior.

**Objective:** To assess magnitude of exposure to sexually explicit films and the role of the exposure and other factors as predictors of in-school youth sexual activity.

**Methodology:** A cross-sectional study was conducted among 810 randomly selected students drawn from 18 Addis Ababa high schools. A structured and semi-structured pre-tested, self-administered questionnaire was used to collect data on socio-demographic, behavioural factors and data related to exposure to sexually explicit films from March 11 to 15, 2008.

**Results:** More than two-thirds (69.5%) of the participants have watched sexually explicit films at least once. Watching such films often was the major predictor of sexual activity among in-school youth with AOR 7.97 (95% C.I. =3.19-19.86). Students from public school and those who consume alcohol were more than two times likely to be sexually active while likelihood increased 3 and 4 times among those who chew *Khat* frequently and those who ever have a boy/girl friend respectively. However, students who live with their parents and close relatives were less likely to be sexually active.

**Conclusion:** Frequent exposure to sexually explicit films, alcohol, and *Khat* consumption, were modifiable factors linked with sexual activity of the in-school youth. Developing criticizing skill of students on sexually explicit films and encouraging parental guidance to decrease exposure to such films were some of the recommendations forwarded. [*Ethiop. J. Health Dev.* 2009;23(3):183-189]

## Introduction

Worldwide, almost 6,000 youth aged 15 to 24 are infected with HIV each day (1) and an estimated number of 12 million people in this age group are living with HIV/AIDS; three-fourth of them reside in Sub-Saharan Africa. In Ethiopia, according to EDHS 2005, 0.4% of those between the age of 15-19 and 1.1% of those between 20 and 24 years are living with HIV/AIDS (2). Besides, 14% of all unsafe abortions in low and middle income countries are among women aged 15-19 years (3) whereas 25-57.5% of induced abortions in Ethiopia occur among young women aged 15-20 years (4).

Among various social, biological, behavioural and environmental factors that expose the youth to such reproductive health risks, lack of adequate information on sexual and reproductive health issues is of prior concern (4). Naturally, adolescence is a period that is characterized by intense information seeking especially about adult roles (5). However, given lack of readily available information about sexual issues, teens turn to media for information about sexual norms. Among other things they use media as sexual super-peer that encourages them to be sexually active (6).

One group of media, which the youth usually face, are **sexually explicit media:** *textual, visual, or aural materials that depict sexual acts or that expose the*

*reproductive organs of the human body* (7, 8). Those materials are commonly named erotic or pornographic materials. To date, due to the advancement of technology, western movies, significant proportion of which portrays sexual activity or eroticism are widespread globally (9, 10). Apparently most of these are vectors for messages counteracting to those in IEC materials related to HIV/STDs and family planning. However their effect is rarely considered in models explaining adolescent sexuality (11). In some developed countries, media impact on adolescents' sexual behavior is among the priority areas of family planning and prevention of HIV infection and STDs (12).

Nonetheless, evidence on the magnitude and the role of sexually explicit media, particularly films, in young people's decisions regarding sexual behavior is meager in developing countries. Therefore, the purpose of this study is to provide information on the magnitude and role of exposure to sexually explicit films, among in-school youth, which may help for program initiatives by concerned bodies.

## Methods

A cross-sectional descriptive study was conducted from March 11 to 15, 2005. The sample was drawn from in-school youth drawn from high schools of Addis Ababa, the capital city of Ethiopia. Addis Ababa has a total of 10

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sub-cities with 36 eligible high schools distributed as follows: 10 public, 14 private, 8 mission, and 3-church/mosque owned. Schools with special students, such as foreign communities, differing in nationality composition or age structure from others were not considered in this study. Schools which do not have 10-12<sup>th</sup> grades were also exempted for those in lower grades are younger thus not able to give consent.

After the schools were grouped based on their ownership status, considering the available resource, location and the proportion of students in each category, a total of 18 schools were selected and enrolled. All (10) public schools, four private schools out of 14, three mission schools out of eight and one religious based school out of three were randomly selected and recruited (i.e one from each sub-city). All sections of grade 10-12 from each school were separately enlisted and one section from each grade was randomly selected through lottery method. Out of each selected section, 15 students were randomly taken picking random numbers from the class roster. Finally the total number of students taken from each school was 45. Whenever the selected school was not willing to participate, a school with the same ownership status located nearby was replaced.

The sample size for the study was calculated using a single population proportion formula by assuming the previously unknown magnitude of exposure to sexually explicit films to be 50%, 95% confidence level, 5% margin of error and design effect of 2 with five percent allowance for non-response. The estimated sample size was 806 subjects, which was later adjusted to 810 to get equal number of students from each school.

A structured and semi-structured pre-tested, self-administered questionnaire was used to collect data on socio-demographic, behavioural factors and data related to exposure to sexually explicit films. Two supervisors and eight data collectors were recruited and trained for a day on data collection technique. Selected schools were communicated and pre-test was done a week before data collection in a similar community but not enrolled in the present study.

Data were cleaned manually and then entered into computer using Epi-Info version 6 and statistical analysis was made using SPSS version 13. Descriptive statistics was used to describe socio-demographic characteristics. Cross-tabulation and bivariate analysis were used to see the associations of different variables. Odds ratio with 95% confidence interval was computed to assess the presence and degree of association between variables. Logistics regression model was also applied to identify determinants for sexual activity. In addition, standard tabulations were generated in which the outliers were identified. A p-value of below 0.05 denoted significance in differences.

The study was reviewed and approved by the Institutional Review Board of Faculty of Medicine, Addis Ababa University. Permission was obtained from Addis Ababa Health Bureau as well as each school. Moreover, informed consent was taken from every student involved in the study.

### Results

Of the total of 810 participants enrolled in the study, 803 of them responded making a total response rate of 99%. More than half of the participants (56%) were from public schools. Females constituted 57.8%, making male to female ratio of 1:1.4. Age of the respondents ranged from 15 to 24 and the overall mean age was  $17.15 \pm 1.33$  years. With the exception of very few students (1%), the rest were single (99%). The majority (70.2%) of the respondents were Orthodox Christians. Two-thirds of the participants (66.8%) lived with both of their parents. Slightly over half (54.6%) of the fathers and nearly one third of mothers (32.3%) of the respondents had completed college and secondary school respectively (Table 1).

Regarding how students spend their spare time often, nearly half (47.4%) of them answered watching films or TVs and the rest mentioned reading extracurricular books (34.6%) and listening to music (11.5%). One third of the respondents admitted to consume alcohol rarely, very few stated ever smoking cigarettes, and chewing khat (Table 2).

Over two-third (69.52%) of the participants responded affirmatively for watching sexually explicit movies at least once. Of these, 17.6% of them reported watching sex films often, 49.7% sometimes, and 32% rarely. The majority (64%) got such movies from Video rental shops and they usually watched together (48.21%) with same sex friends. Only 5.7% of those exposed to sexually explicit films could recall a display of safe sex implying the use of condom or another family planning method (Table 3).

Table 4 demonstrates the sexual characteristics of respondents by gender. As depicted, 17.8% claimed to have history of sexual intercourse. The proportion of males who were sexually active was significantly higher than females ( $p < 0.001$ ). Among those who recalled, the mean age of sexual debut was  $16.2 \pm 2.02$  years for both males and females (with mean for males =  $16.4 \pm 1.67$  and for females  $15.89 \pm 2.05$ ). More than half (56.8%) of the sexually active had more than one partner and significantly higher numbers of males had more than one partner than females ( $p < 0.001$ ). Around one third (33.8%), of the sexually active youth have never used condom with males being better ever-users as opposed to their counterpart ( $p < 0.001$ ). Consistent condom use was reported among 38.7% only.

Table 1: Socio-demographic characteristics of the respondents by gender in high schools of Addis Ababa, March 2008

Characteristics	Sex		Total Freq. (%)
	Male Freq. (%)	Female Freq. (%)	
<b>School Type (N=803)</b>			
Public	225 (66.4)	225 (48.5)	450 (56.0)
Non Public	114 (33.7)	239 (51.6)	353 (44.0)
<b>Age Category (N=803)</b>			
15-16	81 (23.9)	158 (34.1)	239 (29.8)
17-18	195 (57.5)	266 (57.3)	461 (57.4)
19-24	63 (18.6)	40 (8.6)	103 (12.8)
<b>Current grade (N=803)</b>			
10 <sup>th</sup>	108 (31.9)	157 (33.8)	265 (33.0)
11 <sup>th</sup>	114 (33.6)	155 (33.4)	269 (33.5)
12 <sup>th</sup>	117 (34.5)	152 (32.8)	269 (33.5)
<b>Marital status (N=803)</b>			
Single	336 (99.1)	459 (98.9)	795 (99.0)
Married	2 (0.9)	5 (1.1)	7 (1.0)
<b>Religion (N=803)</b>			
Orthodox	242 (71.4)	322 (69.4)	654 (70.2)
Muslim	59 (17.4)	70 (15.1)	129 (16.1)
Protestant	21 (6.2)	57 (12.3)	78 (9.7)
Catholic	10 (2.9)	11 (2.4)	21 (2.6)
Others	7 (2.1)	4 (0.9)	11 (1.4)
<b>Lives with (N=798)</b>			
Both parents	216 (64.3)	317 (68.6)	533 (66.8)
Mother only	50 (14.9)	66 (14.3)	116 (14.5)
Father only	18 (5.4)	17 (3.7)	35 (4.4)
Grandparents	12 (3.6)	11 (2.4)	23 (2.9)
Other Relatives	22 (6.5)	38 (8.2)	60 (7.5)
Others	18 (5.4)	13 (2.7)	31 (4.0)
<b>Father's educational status (N=787)</b>			
Illiterate	20 (6.0)	15 (3.3)	35 (4.4)
Read and write	42 (13.8)	48 (10.5)	90 (11.4)
Elementary	52 (5.8)	57 (12.4)	109 (13.9)
Secondary	45 (16.4)	69 (15.1)	123 (15.6)
Tertiary	161 (48.9)	269 (58.7)	430 (54.6)
<b>Mother's educational status (N=784)*</b>			
Illiterate	35 (10.7)	26 (5.7)	61 (7.8)
Read and write	61 (18.7)	70 (15.3)	131 (16.7)
Elementary	71 (21.8)	80 (17.5)	151 (19.3)
Secondary	105 (32.2)	148 (32.3)	253 (32.3)
Tertiary	54 (16.6)	134 (29.3)	188 (24.0)

\* Sample size varies due to missing responses. Analysis was done only for valid cases

Table 5 shows the various predicting factors associated with the sexual activity of the respondents. In the bivariate analysis, being male, belonging to the age group 15-19, drinking alcohol rarely, watching sexually explicit films sometimes were found to be predictors of being sexually active while living with others and discussing openly with family members on sexual issue were identified protective factors.

In the multivariate analysis model; school type, drinking alcohol, chewing *Khat*, watching sexually explicit films

often and ever-having a boy/girl friend retained being strong predictors of sexual activity. Hence participants from public school were two times, who consume alcohol more than two times, sometimes chew *Khat* three times, watch sexually explicit films often, eight times, and who ever-have a boy/girl friend, more than four times more at risk of sexual experience. This made much frequent sexually explicit film the strongest predictor of being sexually active when compared to other factors.

Table 2: Distribution of selected personal behaviors among respondents in high schools of Addis Ababa, March 2008

Personal Behaviors	Total	
	Frequency	Percent
<b>Major spare time activities (N=688)**</b>		
Watching films/TV	326	47.38
Reading books	238	34.59
Listening to music	78	11.34
Exercising sports	48	6.98
Attending religious services	36	5.23
<b>Alcohol drinking (N=803)</b>		
Never	390	48.6
Rarely	243	30.3
Sometimes	148	18.4
Often	22	2.7
<b>Cigarette smoking (N=800)*</b>		
Never	706	88.3
Rarely	45	5.6
Sometimes	40	5.0
Often	9	1.1
<b>Khat chewing (N=797)*</b>		
Never	706	88.6
Rarely	37	4.6
Sometimes	46	5.8
Often	8	1.0

\* = Sample size varying due to missing responses. Analysis was done only for valid cases

\*\* = Multiple answers possible

Table 3: Exposure of respondents to sexually explicit films by gender in high schools of Addis Ababa, March 2008

Variable	Male	Female	Total
	Freq. (%)	Freq. (%)	Freq. (%)
<b>Ever exposure to sexually explicit films (N=735)</b>			
Yes	266 (83.65)	245 (58.75)	511 (69.52)
No	52 (16.35)	172 (41.25)	224 (30.48)
<b>Exposure in the most recent vacation (within one month period (N=509)</b>			
Yes	130 (48.87)	71 (29.22)	201 (39.49)
No	136 (51.13)	172 (70.78)	308 (60.51)
<b>Frequency of watching (N=507)</b>			
Once or twice	54 (20.45)	113 (46.50)	167 (32.94)
Sometimes	145 (55.30)	106 (43.62)	252 (49.70)
Often	64 (24.24)	24 (9.88)	88 (17.36)
<b>Sources of similar films (N=509)**</b>			
Video rental	175 (67.83)	152 (67.26)	327 (77.88)
Video house	67 (25.97)	15 (6.64)	82 (13.38)
Friends	93 (36.05)	84 (37.17)	177 (28.87)
Others	13 (3.74)	14 (5.28)	27 (4.40)
<b>Trial based on the films (N=509)</b>			
Yes	75 (28.19)	37 (15.22)	112 (22.00)
No	191 (71.80)	206 (84.77)	397 (77.99)
<b>Usually watches films with, (N=504)</b>			
Alone	103 (39.02)	99 (41.25)	202 (40.08)
Same sex friends	152 (57.58)	91 (37.92)	243 (48.21)
Opposite sex friends	28 (10.61)	28 (11.67)	56 (11.11)
Family member	19 (7.20)	44 (18.33)	63 (12.50)
<b>Any display of safe sex<sup>1</sup> (N=510)</b>			
Yes	15 (5.60)	14 (5.78)	29 (5.69)
No	232 (86.60)	201 (83.10)	433 (84.10)
I don't remember	21 (7.81)	27 (11.15)	48 (9.41)

<sup>1</sup>Any display of safe = use of condom or other contraceptive method.

Table 4: Sexual characteristics of respondents by gender in high schools of Addis Ababa, March 2008

Characteristics	Male Freq. (%)	Female Freq. (%)	Total Freq. (%)	P-value
<b>Ever had a boy/girl friend (n=793)</b>				
Yes	153 (45.81)	200 (43.57)	353 (44.51)	0.532
No	181 (54.19)	259 (56.43)	440 (55.49)	
<b>Sexual intercourse (n=786)</b>				
Yes	86 (26.06)	54 (11.84)	140 (17.90)	0.000**
No	244 (73.94)	402 (88.16)	646 (82.19)	
<b>Number of life time sexual partners (n=132)</b>				
One	23 (27.71)	34 (69.39)	57 (43.18)	0.000**
Two	26 (31.33)	10 (20.41)	36 (27.27)	
Three or more	34 (40.96)	5 (10.20)	39 (29.55)	
<b>Condom ever use (n=139)</b>				
Yes	67 (78.82)	25 (46.30)	92 (66.19)	0.000**
No	18 (21.18)	29 (53.70)	47 (33.81)	
<b>Frequency of condom use (n=92)</b>				
Consistent	29 (42.65)	7 (29.17)	36 (39.13)	0.281
Inconsistent	39 (57.35)	17 (70.83)	56 (60.87)	

\* Sample size varies due to missing responses. Analysis was done for done for valid cases

\*\* Significant taking p-value < 0.05

## Discussion

According to the social learning theory, young people learn about sexuality from observing others depicted in the media (13). Several studies that illustrate media's powerful influence on adolescents' sexual attitudes, values, and beliefs have verified the essence of this theory (12). But still the effect of erotic and pornographic media on sexuality is not a settled issue (9) and supporting quantitative evidence is not widely available in most of the developing countries.

In the present study, frequent exposure to sexually explicit movies was found to be the major predictor of sexual initiation among in-school youth. According to a study conducted in USA in 2004, media influences were significantly associated with sexual intention and behavior of early adolescence even after considering influences from other important socialization sources, such as family, religion, school, and peers (11). Similarly, different cross-sectional and longitudinal studies have demonstrated the significant association between media consumption, mainly TV shows, and sexual activity among teenagers (14, 15).

However the association of exposure to SEM with youth sexuality is reasonably assumed to be a bi-directional process; whereby, increased exposure to sexual content may predict early initiation of sexual intercourse. Equally, the experienced ones may seek out more sexual media content, which may stimulate increased sexual experimentation (11).

Sexually explicit films, as shown in this study, rarely depict sexual behaviour in the context of a long-term relationship and give less emphasis to the use of contraceptives or preventing the potential negative

consequences of sexual behaviour (9). The sexual content in such media may dilute the positive impact of school based sexual health programs and more traditional sexual values espoused by adults (16).

In conformity with various studies, alcohol and *Khat* consumption were found to be positively associated with sexual activity among the youth (17-19). Even though alcohol is known to inhibit rational thinking and increase risk-taking behavior, how *Khat* can predispose to increased sexual activity is not yet clearly understood. This signifies the importance of measures in monitoring the school environment and intensifying dialogue on effects of substance use.

Ever-having a boy/girl friend was another factor significantly associated with positive history of sexual intercourse. This finding seems to magnify that the youth are somewhat equating courtship with having sexual intercourse and the vice versa pointing the need of empowering in-school youth with assertive refusal skills. Moreover, the higher proportion of inconsistent condom use among sexually active students implies the need to work on effective sex education.

Living with both parents or close relatives and being a private school student were shown to be protective against being sexually active which might indirectly reflect the need of parental monitoring and role of guardians in regulating sexual activity of the youth. Parental decision making, centred on the child's activities within (e.g., TV watching) and outside (e.g., hanging with peers) of home was associated with a lower likelihood of sex initiation in disadvantaged neighbourhoods (20).

Table 5: Multivariate analysis of factors predicting sexual activity among in school youth of Addis Ababa, March 2008

Characters	Sexually active		COR (95% C.I)	AOR (95% C.I)
	Yes	No		
<b>School type</b>				
Public	97	342	2.00 (1.36-2.96)**	2.20 (1.11-4.36)**
Non public	43	304	1.00	1.00
<b>Sex</b>				
Male	86	244	2.62 (1.80-3.82)**	1.28 (0.68-2.40)
Female	54	402	1.00	1.00
<b>Age category</b>				
15-19	117	631	8.86 (4.43-17.72)**	0.48 (0.17-1.35)
20-24	23	14	1.00	1.00
<b>Lives with</b>				
Alone	10	7	1.00	1.00
Both parents	438	85	0.14 (0.05-0.37)*	0.16 (0.04-0.74)**
Single parent	123	24	0.14 (0.05-0.39)*	0.24 (0.05-1.17)
Close relatives	73	14	0.13 (0.04-0.41)*	0.11 (0.02-0.60)**
<b>Father's educational status</b>				
Illiterate	32	88	1.00	1.00
Elementary	17	90	0.52 (0.27-1.00)	0.67 (0.22-2.04)
Secondary	22	100	0.61 (0.33-1.12)	0.80 (0.26-2.44)
Tertiary	65	356	0.50 (0.31-0.81)	1.18 (0.41-3.39)
<b>Mother's educational status</b>				
Illiterate	43	146	1.00	1.00
Elementary	37	110	1.14 (0.69-1.89)	1.54 (0.63-3.79)
Secondary	41	203	0.69 (0.43-1.11)	0.63 (0.24-1.70)
Tertiary	17	170	0.34 (0.19-0.62)	0.46 (0.14-1.50)
<b>Drinks alcohol</b>				
Never	27	352	1.00	1.00
Rarely	38	201	2.46 (1.46-4.16)*	1.51 (0.71-3.24)
Sometimes	63	83	9.90 (5.94-16.48)**	2.65 (1.19-5.91)**
Often	12	10	15.64 (6.20-39.49)	1.95 (0.42-9.15)
<b>Chews Khat</b>				
Never	88	602	1.00	1.00
Rarely	14	22	4.35 (5.94-16.48)**	1.94 (0.75-5.05)
Sometimes	31	15	14.14 (7.34-27.24)**	3.24 (1.32-8.96)**
Often	6	2	20.52 (4.08-103.3)	-----
<b>Watches SEFs*</b>				
Rarely	14	149	1.00	1.00
Sometimes	58	190	3.25 (1.75-6.05)**	1.80 (0.82-3.95)
Often	54	31	18.54 (9.17-37.47)	8.97 (3.19-19.86)**
<b>Discuss sexual issues with family</b>				
Yes	51	298	0.66 (0.45-0.96)**	0.84 (0.46-1.54)
No	87	333	1.00	1.00
<b>Sex education at school</b>				
Yes	71	362	0.77 (0.54-1.12)	0.91 (0.51-1.62)
No	68	268	1.00	1.00
<b>Ever had a boy/girl friend</b>				
Yes	115	233	8.41 (5.27-13.44)**	4.57 (2.37-8.79)**
No	24	433	1.00	1.00

COR=Crude Odds Ratio; AOR=adjusted odds ratio; \*\*=Statistically significant; \*=Sexually

In conclusion, considering the magnitude of exposure, content and influence, the need to give emphasis to sexually explicit films by guiding the youth to be selective in their watching, developing their skill of criticizing literatures, movies, or artworks idealizing sex is very important. Open discussion on sexual issues and living with both parents and/or close relatives were also shown to be protective against being sexually active. This obviously signifies the need of raising parental awareness on the need of open discussion related to sexual issues. Evidence based, interventions should also

be amplified to decrease the magnitude and effect of *Khat* and alcohol use among high school youth.

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