

Sexual Practices and Associated Factors Among High School Students in A Municipality in Ghana

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Abstract

Introduction

Adolescent sexual activity can have undesirable reproductive health outcomes. This includes exposure to the risks of unplanned pregnancy, abortion, sexually transmitted infections. Addressing sexual and reproductive health needs of adolescents is a major challenge in global health. This study sets out to determine sexual practices among in-school adolescents.

Methodology

The study was conducted in Yilo Krobo Municipal in Eastern Region of Ghana with a population of 97,466 and adolescent population of 18,519. A sequential explanatory mixed method cross-sectional design employing quantitative and qualitative methods were used. Study participants were adolescents aged 10 to 19 years from both Junior and Senior High Schools in the Municipality. Structured questionnaires and focus group discussions (FGD) were carried out to collect data. Data was analyzed in SPSS and EPI-Info

Results

More than thirty-four percent (34.3%) of students have had sex, 11.9% of them were less than 15 years. Students with multiple sexual partners were 13.3% while 23.3% had

unprotected sex. Moreover, 11.7% reported having nonconsensual sex, out of which 24.4% were aged less than 15 years, 4.7% had sex with both males and females. Students above 14 years and in SHS were more likely to be sexually active (OR: 0.46, $p < 0.0001$, OR: 0.73, $p < 0.0497$). FGD revealed that good parental communication, provision and supervision is protective against risky sexual practices.

Conclusion

In conclusion, causes of adolescents' risky sexual practices include economic, social and peer influence and a supportive environment with good parental communication and provision support healthy development and reduce risky sexual practices.

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Introduction

Adolescent sexual activity can have undesirable reproductive health outcomes.¹ These include exposure to the risks of unplanned pregnancy, abortion, sexually transmitted infections. Addressing the sexual and reproductive health needs of adolescents is a major challenge in global health.

Violence has also been associated with adolescent sexual activity in many part of sub-Saharan Africa.²⁻⁷ Findings from a nationally representative sample of females aged 13–24 years in Swaziland indicated that 33% had experienced sexual violence before the age of 18.⁷ This prevalence falls within the reported range for other Sub-Saharan African countries.⁸ Sexual coercions have

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also been reported by boys in Nigeria⁹ and other developing country settings such as India.¹⁰

Early sexual debut (first sexual intercourse at or before age 14) carry a higher risk of unintended pregnancy and association with abuse.¹¹⁻¹⁷ In Jamaica, the national Reproductive Health Survey reports that 24% of women aged 15–24 years have had sexual intercourse by age 14, and a community-based household survey of youth aged 15–19 years found that 30% of females have had sex before age 14.^{18,19} Another study in Jamaica demonstrated a relationship between early sexual debut and childhood sexual abuse of young women.¹⁸

In some settings, adolescents who stay in school longer are less likely to engage in sexual risk behaviors such as multiple sexual partners and unprotected sexual intercourse.¹¹ It is unclear, however, whether adolescents who stay in school are less likely to engage in risky sex or whether sexually active adolescents who engage in risky sex are more likely than others to drop out of school, and are missed in school-based studies. In some settings where premarital sex is taboo, sexual activity may provoke negative responses from teachers which may adversely affect school performance and lead to dropout.¹²

Moreover, unprotected sexual activity and multiple sexual partners may result in adolescent pregnancy and birth as well as sexually transmitted diseases. This can result in school dropouts or expulsion, since the school policy in many developing countries is unfriendly to pregnant adolescents. Thus, teenage sexual activities whether or not it leads to pregnancy or birth may have a negative impact on young women's future educational attainment through school dropout. Risk factors associated with poor

sexual behaviors among adolescents are parents of low educational attainment, single-parent families, having friends who are sexually active or do not use condoms while adolescents' high religiosity protects against poor sexual practices.¹⁴

Sociocultural factors play an important role in the prevalence, adolescent sexual activity and related risk. This study aimed at determining risky sexual practices such as early sexual debut, multiple sexual practices and unprotected sexual intercourse and their associated factors among in-school adolescents in Yilo Krobo Municipality of Ghana. The study was conducted to inform the design of interventions by the municipal health directorate to address adolescent sexual and reproductive health in the municipality.

Methods

The study was conducted in Yilo Krobo Municipal with a total population of 97,466 and Adolescent population of 18,519.²⁰ Yilo Krobo is in the Eastern Region of Ghana, and it is mainly a rural district with few urban areas. Major economic activities are farming, fishing, and trading with few formal sector workers. Adolescents are mainly found in schools with few out of school adolescents who are involved in trading activities. Young adolescents aged below sixteen years are normally found in Junior High Schools (JHS) which is a higher educational level above the basic level of education.

Students are taught various subjects and are prepared to enter the Senior High Schools (SHS) by taking an entrance examination. Students in SHS are adolescents above 16 years and subjects taught at this level prepares them for a university education after writing the West African Examination. Duration of JHS education is three years and same for SHS education. There exist school

health programs in both JHS and SHS where sexual reproductive health topics are taught in the schools.

A sequential explanatory mixed method cross-sectional design was used. Study participants were adolescents aged 10 to 19 years from both Junior and Senior High Schools in the Municipality (JHS and SHS).

Sample size was 700 students, arrived at using estimated prevalence of sexual practices among adolescence as 15% with margin of error of 2.7% and level of significance of 95%. A stratified random sampling method was employed to select the students. A list of all JHS and SHS in the district was obtained from the Education Service. JHS were separated from SHS to form different strata. Sampling frames with the listing of the schools was formed for each stratum.

Seven JHS schools were randomly selected by balloting from JHS sampling frame and two SHS were randomly selected from the SHS stratum. In each JHS, registers containing all the names of first year JHS students were obtained, and Stata was used to generate and randomly select 50 students from each school to make a total of 350 students. In the two SHS, one hundred and seventy-five (175) students were randomly selected from first year SHS students in each school through balloting to get a total of 350 students from the Senior high schools. A total of 700 students were then enrolled into the study.

Structured questionnaires were used to collect quantitative data. The questionnaires were pre-tested in four selected schools in a neighboring district to correct any problems detected in its administration to ensure validity. The questionnaires which were in English were self-administered in the schools. Trained research assistants were

present to assist in the process. The quantitative data was entered using SPSS and analyzed in both SPSS and Epi-info version 7. Descriptive analysis included frequencies and percentages on various variables for the first part of the study to describe the study participants and determine the prevalence of sexual risky behaviors. The prevalence of sexual risky behaviors was computed based on the frequencies of students involved in these behaviors in relation to the total study population. Bivariate analysis was conducted: odds ratios were calculated to assess relationships between exposures and outcomes. The findings of the quantitative data analysis were summarized and used to inform the design of procedures and tools in the follow-up qualitative component.

Four focus group discussions (FGDs) were held with eighteen (18) boys and twenty (20) girls selected from JHS and SHS. Discussants in the groups were put according to sex and age such that boys' and girls' groups were separated with two groups from JHS and two groups from SHS. The choice of FGDs over in-depth interviews was informed by the findings of the quantitative data analysis.

The FGDs were moderated by the principal investigator and a research assistant. The discussions were tape-recorded, and the research assistant took notes on important gestures and non-verbal communication that took place among discussants during the FGDs. The FGDs lasted for about one and half hours. The qualitative data was transcribed and typed out verbatim. Coding and analysis were done manually. Inductive analysis was employed to condense raw data into a summary, and this was done by identifying and generating thematic areas and presenting findings according to thematic areas with selected supporting

quotes. Ethical approval was granted by Ghana Health Service Ethics Review Board.

Results

Seven hundred students participated in the survey. They included 362 females (51.8%). About a third (32.7%) were 14 years and younger. The majority (57.7%) were aged between 15 and 19 years, Half (50.0%) of the students were in SHS while the rest were from JHS. The total number of participants of

FGD was 38 out of which 20 were girls and 18 were boys.

Concerning the educational level and occupation of parents of respondents, 7.7% of fathers and 7.6% of mothers had tertiary level of education while 13.3% of fathers and 14.1% of mothers had no formal education. Most parents are farmers (43%) followed by formal sector workers (21.8%) and 1.6% were unemployed. More than 95% of respondents mentioned that they belong to the Christian religion.

Table 1 Sociodemographic Characteristics of respondents and Risky Sexual Practices

Socio Demographic Factors	Risky Sexual Practise		OR	P Value
	Yes (%)	No (%)		
Age				
14 years and below	53 (23.1)	176 (76.9)	0.46	p<0.000*
Above 14 years	186 (39.6)	284 (60.4)		
Sex				
Male	124 (37.2)	209 (62.8)	1.30	p=0.105
Female	114 (31.4)	249 (68.6)		
Place of stay				
Yilo Krobo	159 (32.6)	329 (67.4)	0.81	p=0.213
Outside Yilo Krobo	79 (37.4)	132 (62.6)		
Grade				
JHS	106 (30.6)	240 (69.4)	0.73	p=0.049*
SHS	133 (37.7)	220 (62.3)		

Students who were above 14 years and were in SHS were more likely to be sexually active compared to those below 14 years and in JHS (OR: 0.46, p<0.0001, OR: 0.73, p<0.0497).

Sexual Behaviors

About a third (34.3%) of respondents admitted to having had sex at least once. The rest had never had (Table 2)

Table 2 Prevalence of Sexual Activity among Respondents (n = 700)

<i>Sexual behavior</i>	Frequency	Percent
<i>Age of first sexual intercourse</i>		
<i>No response</i>	1	0.0
<i>Never had sex</i>	460	65.8
<i>Below and up to 14 years</i>	83	11.9

<i>Above 14 years</i>	156	22.3
Number of people you have had sex with		
<i>No response</i>	1	0.0
<i>Never had sex</i>	460	65.8
<i>1 person</i>	146	20.9
<i>2 or more people</i>	93	13.3
Sex associated with alcohol or drug use		
<i>No response</i>	1	0.0
<i>Yes</i>	21	3.1
<i>No</i>	218	31.1
<i>Never had sex</i>	460	65.8
Use of condoms during the last sexual intercourse		
<i>No response</i>	1	0.0
<i>Yes</i>	76	10.9
<i>No</i>	163	23.3
<i>Never had sex</i>	460	65.8
Ever been forced to have sexual intercourse		
<i>No response</i>	1	0.0
<i>Yes</i>	82	11.7
<i>No</i>	617	88.3
Whom have you ever had sexual contact with		
<i>No response</i>	2	0.0
<i>Opposite sex</i>	205	29.5
<i>Both sexes</i>	33	4.7
<i>Never had sexual contact</i>	460	65.8

Table 2 shows the prevalence of sexual behaviors among the total respondents, 11.9% had sex when they were 14 years and younger, 13.3% had sex with multiple partners and 23.3% had sex without using condoms. A total of 82 students constituting 11.7% had ever been forced to have sex out of which 24.4% were aged 14 years and below. Among the total respondents, 4.7% reported having sex with both sexes, that is bisexual activity.

Table 3 Sexual Practices among Sexually Active Adolescents (n = 239)

Sexual behavior	Frequency	Percent
Age of first sexual intercourse		
<i>No response</i>	1	0.0
<i>Below and up to 14 years</i>	83	34.7
<i>Above 14 years</i>	156	65.3
Number of people you have had sex with		
<i>No response</i>	1	0.0
<i>1 person</i>	146	60.1
<i>2 or more people</i>	93	38.9
Number of people you have had sex with during the last 3 months		

<i>No response</i>	1	0.0
<i>Had sex but not during the past 3 months</i>	107	44.8
<i>1 person</i>	103	43.1
<i>2 or more people</i>	29	12.1
<i>Use of alcohol or drugs when having sex</i>		
<i>No response</i>	1	0.0
<i>Yes</i>	21	8.8
<i>No</i>	218	91.2
<i>Use of condoms during the last sexual intercourse</i>		
<i>No response</i>	1	0.0
<i>Yes</i>	76	31.8
<i>No</i>	163	68.2
<i>Ever been forced to have sexual intercourse</i>		
<i>No response</i>	1	0.0
<i>Yes</i>	82	34.3
<i>No</i>	157	65.7
<i>The contraceptive method used during the last sexual intercourse</i>		
<i>No method was used to prevent pregnancy</i>	119	49.8
<i>Birth control pills</i>	19	8.0
<i>Condoms</i>	76	31.8
<i>IUD</i>	1	0.4
<i>Injection/Implant</i>	6	2.5
<i>Withdrawal or some other method</i>	16	6.7
<i>Not sure</i>	2	0.8
<i>Whom have you ever had sexual contact with</i>		
<i>No response</i>	2	0.0
<i>Opposite sex</i>	205	86.2
<i>Both sexes</i>	33	13.8

Of those who were sexually active, 83 (34.7%) had their first sexual intercourse at the age of 14 years and below, 156 (65.3%) at above 14 years. One hundred and forty-six students (60.1%) have had sex with one person and 93 (38.9%) have had sex with 2 or more people.

Table 5 Multivariate analysis of factors associated with Risky Sexual Practices

Variable	COR	AOR	95%CI	P value
Age of respondents	0.46	0.62	0.54, 0.72	0.000*
Grade	0.73	1.87	1.11, 3.02	0.015*
Respondents find sex before marriage to be wrong	0.58	0.95	0.72, 1.24	0.689
Close friends find sex before marriage to be wrong	0.69	0.96	0.73, 1.24	0.786
Close friends find taking drugs to be wrong	0.58	0.95	0.74, 1.26	0.721
Freely talk to parents about sexual practices	0.58	0.61	0.41, 0.91	0.014*
Need to ask permission before going out at night	0.41	0.42	0.26, 0.70	0.001*

Cigarette smoking	3.52	2.63	1.50, 4.56	0.001*
Alcohol intake	3.6	2.19	1.49, 3.25	0.001*
Parents take alcohol	1.75	1.37	0.90, 2.04	0.131
Friends take alcohol	2.88	1.48	0.97, 2.26	0.068
Relatives take alcohol	1.47	0.98	0.65, 1.46	0.918
Use Marijuana	2.71	0.7	0.32, 1.47	0.349
Involved in commercial activity	2.02	1.48	1.03, 2.31	0.034*
School attendance (Absenteeism)	1.63	0.84	0.73, 0.96	0.014*

After adjusting for other variables, the significant factors associated with unprotected sex were alcohol intake (AOR: 2.19, $p > 0.001$), cigarette smoking (AOR: 2.63, $p = 0.001$), involvement in commercial activities (AOR: 1.48, $p = 0.034$) and students in SHS (AOR: 1.87, $p = 0.015$). The following factors were identified to be protective against having unprotected sex; respondents below 14 years of age (AOR: 0.62, $p > 0.0001$), freely talk to parents about sexual practices (AOR: 0.61, $p = 0.014$), need to ask permission before going out at night (AOR: 0.42, $p = 0.001$).

Discussion

The study found that 11.9% of study participants who had sex were at the age of 14 years or less than 14 years, bivariate analysis revealed significant association of risky sexual practices in this age group. More than thirteen percent (13.3%) had sex with two or more partners and 23.3% had sexual intercourse without protection. The legal age of consent for sex in Ghana is 16 years and having sex with a girl who is below the age of 16 years with or without her consent is considered as defilement which is a criminal offense. At this level of reported sexual activity, it is ironic that none of the respondents mentioned report to the Police, parents or school authorities.

According to the FGD, the students who have not had sex gave reasons that premarital sex is not good, and a girl married as a virgin gets respect from spouse while sexually active participants stated that sexual intercourse aids in healthy development of adolescents. To determine why some adolescents had multiple sexual partners, they gave reasons such as financial difficulties as depicted by the quotes below.

'A girl needs money to buy items such as pad during her period and sometimes if your parents do not provide the items and a man calls you, you will have to go so you can get money to buy what you need. These men, you know they will not give the money to you free; you will have to give him sex before he will give the money to you. Sometimes the men can give you five or ten cedis.' A quote from JHS girl.

'I know a girl that the mother influence her to go out with men so she can bring money home to take care of the items they need in the house.' Quote from JHS boy

Economic reasons contribute to early sexual debut in girls from this study. It has been established in other studies that poverty can influence young girls' involvement in early sexual practices and with multiple sexual partners.^{21,22} From the study, 119 out of the 239 (49.8%) did not use any method during

their last sexual contact with their partners and the reasons for unprotected sex given by some participants of the FGD were that some sexual activities were unplanned and use of condoms during sex is not pleasurable, quotes from the FGD below; *'Sex with condom use is not pleasurable, I enjoy it raw'* *'Sometimes you don't plan to have sex, it just happens, and, in such cases, we do not use protection'*

In designing adolescent health programs, issues of unplanned sexual intercourse and perceptions on condom use need to be addressed to ensure safe sex. Early initiation of sex, multiple sexual partners and unprotected sex are behaviors that predispose adolescents to unwanted pregnancies and sexually transmitted diseases.^{1,12} It is also likely to lead to school dropouts for the girls resulting in unskilled, unemployed females with high vulnerabilities which can further result in inequalities and poverty. Young adolescent boys engaged in risky sexual behaviors are at risk of sexually transmitted diseases and poverty is also a driver to early sexual debut among them.

Interestingly 4.7% of study participants reported having sexual intercourse with both sexes which indicate that these teenagers are bisexual. The bisexual activity is associated with early initiation of sex, high rate of teenage pregnancies and sexually transmitted diseases as found in studies by Cooper et al.^{23,24} The study showed that 11.7% of adolescent girls had been forced to have sex out of which 24.4% were below 14 years, other studies found that early sexual debut that is sex at and below 14 years is associated with experiences of sexual coercion and violence.^{11,18} Protection of

young girls from sexual violence and rape will prevent early sexual debut, teenage pregnancy and sexual transmitted diseases and improve their general well-being. Multivariate analysis show that alcohol intake and cigarettes smoking are significant associated factors with sexual activity among adolescents and this agrees with studies which have found clear association between substance use and sexual activity among adolescents.²⁵ Sometimes alcohol is used by some men to overcome defenses of girls to have sex with them as confirmed by the FGD.

'Some girls who take in alcohol were introduced to them by the men, when men go out with a girl and want to have sex with her, they sometime give them alcohol to drink so that the girl becomes powerless, and they then have sex with her.' Quote from FGD Alcohol and cigarette use are risky behaviors among adolescents and once adolescents are involved in these behaviors it is likely they will involve themselves in other risky behaviors such as risky sexual practices.

Multivariate analysis shows involvement in commercial activities as a significant associated factor to risky sexual activity among adolescents. Involvement in commercial activities predispose adolescents to dangers on the street such as sexual coercion and exploitation. Adolescents on the street live and work in conditions that are not conducive for healthy development, they are exposed to the street subculture such as smoking, alcohol and substance abuse, gambling, engaging in sexual activities, or selling sex for survival.

The circumstances in which these adolescents work increase their vulnerabilities to sexual exploitation and abuse and put them at a higher risk of

unintended pregnancies, sexually transmitted infections and HIV/AIDS. This is depicted in this study when 0.6% of respondents mentioned that the commercial activity, they are involved in is prostitution. Being in SHS is significantly associated with sexual activity compared to those in JHS. This may be attributed to the increasing exposure to sexually related issues as the students grow older in age and become more sexually active.

Good communication between parents and adolescents on sexual issues was found to be protective against involvement in sexual practices and the need to ask permission from parents before going out at night is also protective against sexual activity. The qualitative study confirmed that poor parental communication and parents who fail to provide the needs of their adolescents lead them to indulge in sexual practices as shown by the quote from the FGD. *'Most parents do not listen to their children to communicate with them well. All they know is shout at them, don't do this or that, so the children then talk to their peers on issues that bother them, they then involve themselves in sexual activities depending on the advice of their peers. They lie to their parents that they are going for choir practice or bible studies, and they go to their boyfriends, and these parents get shocked when they find out or when their girls get pregnant. Parents should learn to listen to their adolescents.'*

A study conducted by Weinman et al found that female teens living with their mothers in a perceived supportive family with good communication were 50 percent less likely than teens in non-supportive families to report unprotected sex in the last 30 days or to report sex with a non-steady partner in

the last six months.²⁶ When young people feel unconnected to home, family, and school, they may become involved in activities that put their health at risk. However, when parents affirm the value of their children, young people more often develop positive, healthy attitudes about themselves. In conclusion, causes of adolescents' risky sexual practices include economic, social and peer influence and a supportive environment where parents and guardians communicate and provide for their wards support healthy development of adolescents and reduce risky sexual practices.

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Conflict of interest

No conflict of interest declared

References

1. Dixon-Mueller R, How young is "too young"? comparative perspectives on adolescent sexual, marital, and reproductive transitions, *Studies in Family Planning*, 2008, 39(4):247–262.
1. 2.Koenig MA et al., Coerced first intercourse and reproductive health among adolescent women in Rakai, Uganda, *International Family Planning Perspectives*, 2004, 30(4):156–163.
2. Maharaj P and Munthree C, Coerced first sexual intercourse and selected reproductive health outcomes among young women in KwaZulu-Natal, South Africa, *Journal of Biosocial Science*, 2007, 39(2):231–244.
3. Williams CM, McCloskey LA and Larsen U, Sexual violence at first intercourse against women in Moshi, northern Tanzania: prevalence, risk factors, and consequences, *Population Studies*, 2008, 62(3): 335–348.
4. 5.Zablotska IB et al., Alcohol use, intimate partner violence, sexual coercion and HIV among women aged 15–24 in Rakai, Uganda, *AIDS and Behavior*, 2009, 13(2):225–233.
5. Polis CB et al., Coerced sexual debut and lifetime abortion attempts among women in Rakai, Uganda, *International Journal of Gynecology & Obstetrics*, 2009, 104(2):105–109.
6. Reza A et al., Sexual violence and its health consequences for female children in Swaziland: a cluster survey study, *Lancet*, 2009, (forthcoming).
7. Moore AM et al., Coerced first sex among adolescent girls in Sub-Saharan Africa: prevalence and context, *African Journal of Reproductive Health*, 2007, 11(3):62–82.
8. Ajuwon AJ et al., Sexual behavior and experience of sexual coercion among secondary school students in three states in Northeastern Nigeria, *BMC Public Health*, 2006, Vol. 6, Art. 310.
9. Jaya J and Hindin MJ, Nonconsensual sexual experiences of adolescents in urban India, *Journal of Adolescent Health*, 2007, 40(6): 573.e7–573.e14.
10. Gigante DP et al., Risk factors for childbearing during adolescence in a population-based birth cohort in southern Brazil, *Pan American Journal of Public Health*, 2004, 16(1):1–10.
11. Kirby D, Antecedents of adolescent initiation of sex, contraceptive use, and pregnancy, *American Journal of Health Behavior*, 2002, 26(2): 473–485.
12. Jewkes R et al., Relationship dynamics and teenage pregnancy in South Africa, *Social Science & Medicine*, 2001, 52(5):733–744.
13. Miller BC et al; timing of sexual intercourse among adolescents: family, peer and other antecedents. *Youth and Society*, 1997, 29(1):54-83
14. Martin SL et al., Sexual behaviors and reproductive health outcomes: associations with wife abuse in India, *Journal of the American Medical Association*, 1999, 282(20):1967–1972.
15. Manopaiboon C et al., High rates of pregnancy among vocational school students: results of audio computer-assisted self-interview survey in Chiang Rai, Thailand, *Journal of Adolescence*, 2003, 26(5):517– 530.
16. Maharaj P and Munthree C, Coerced first sexual intercourse and selected reproductive health outcomes among young women in Kwazulu-Natal, South Africa, *Journal of Biosocial Science*, 2007, 39(2): 231–244.
17. Waszak Geary C et al., Sexual violence and reproductive health among young people in three communities in Jamaica,

- Journal of Interpersonal Violence, 2006, 21(11):1512–1533.
18. National Family Planning Board, Reproductive Health Survey 2002–2003: Jamaica Young Adults Report, Kingston, Jamaica: National Family Planning Board, 2005.
 19. Ghana Health Service Annual report 2015
 20. Madise N, Zulu E and Ciera J, Is poverty a driver for risky sexual behaviour? evidence from national surveys of adolescents in four African countries, *African Journal of Reproductive Health*, 2007, 11(3):83–98.
 21. Ferede, T.A., Muluneh, A.G., Wagneu, A. *et al.* Prevalence and associated factors of early sexual initiation among youth female in sub-Saharan Africa: a multilevel analysis of recent demographic and health surveys. *BMC Women's Health* **23**, 147 (2023). <https://doi.org/10.1186/s12905-023-02298-z>
 22. Cooper ML. Alcohol use and risky sexual behavior among college students and youth: Evaluating the evidence. *Journal of Studies on Alcohol and Drugs* 2002; 14:101-117.
 23. Saewyc E, Pettingell S, Skay C. Teen pregnancy among sexual minority youth during the 1990s: Countertrends in a population at risk. *J Adolesc Health*. 2004;34(2):125–126.
 24. Graves Karen L, Leigh Barbara C, The relationship of substance use to sexual activity among young adults in the United States. *Perspectives on sexual and reproductive health, A journal of peer reviewed research*, 1995, vol 27, issue 1
 25. Weinman M, Small E, Buzi RS, Smith P. Risk Factors, Parental Communication,

Self and Peers' Beliefs as Predictors of Condom Use Among Female Adolescents Attending Family Planning Clinics. *Child Adolesc Soc Work J* 2008; 25:157-170.