Sexual Activity and HIV-Related Knowledge among Secondary School Students in China

Lianping He, Yuelong Jin, Xiaohua Ren , Linghong Wang, Zhonghua Nie, Qijun Gu, Daoxia Guo, Wei Lu, Yingshui Yao

ABSTRACT

Objective: The aim of this study was to assess the level of HIV/AIDS knowledge and sexual activity among secondary school students, and to offer specific intervention strategies.

Materials and Methods: Random sampling technique was used and cross-sectional study was conducted among 6347 students using self-administered questionnaire.

Results: The ages of participants range from 9 to 21 years with a mean of 14.83±1.63 years. Of 6347 students, 3214 (50.6%) were female. Results showed that 65% of male and 71% of female had been pornography reader. Overall, the prevalence of knowledge on HIV caused by virus was high for male and female. On intimate contact, 25.7% of the male and 17.7% of the female students reported that they had a history of hugging; 11.3% of male and 5.6% of female students reported that they had an experience of kissing; 11.3% of male and 4.0% of female students reported that they had an experience of caressing, 27% of male and 18% of female students reported that they had an experience of sexual intercourse; and 49.5% of male and 58.4% of female students reported to have been forced to have sex. Accordingly, 75.1% of male and 90% of female students heard of HIV.

Conclusion: Education of the students on HIV /AIDS seems poorer at the secondary school in certain areas of China; more attention should be paid to those of senior grade students and students from divorced families.

Keywords: Sexual activity, student, HIV, China

Introduction

An increase in the incidence of premarital sex leads to an increase in unwanted pregnancies, abortion morbidity/mortality, and sexually transmitted diseases (STDs), secondary infertility and the development of cervical abnormalities in adolescents [1, 2]. Adolescents who become sexually active enter an arena of high-risk behavior [3-6]. Meanwhile, the sexual education program did not alter students' attitudes about premarital sex or monogamy [7].

Several researchers focus on the studies of sex-related knowledge, attitudes and practices among college students. Some results revealed that only-child students scored higher on sex-related knowledge, and they were more inclined to agree with premarital sex, multiple sex partners, one-night stands, extramarital lovers and homosexuality [8]. Students whose parents were relatively well educated, living in the western areas of China, or with nucleus/extensive families were more likely to have early sex in their puberties [9]. Additionally, 44.6% of the students had forced sex [10]. The allegation of forced sex among secondary school students still needs further research.

This study has the following goals: to assess the level of HIV/AIDS knowledge and sexual activity among secondary school students, and to provide baseline data that can help formulating a comprehensive sexuality education program for secondary school students.

Materials and Methods

The data used here are from the health related behavior survey, in which a representative sample (n= 6700) of students were interviewed in 7 secondary schools (4 schools from Jiaxing city,

Cite this article as: *He L, Jin Y, Ren X, et al. Sexual Activity and HIV-Related Knowledge among Secondary School Students in China. Eurasian J Med 2019; 51(1): 49-52.*

Wannan Medical College School of Public Health, Wuhu, Anhui, China

Received: March 20, 2015
Accepted: August 25, 2015

Correspondence to: Yingshui Yao
E-mail: yingshuiyao@163.com

DOI 10.5152/eurasianjmed.2015.15057

Content of this journal is licensed under a Creative Commons Attribution 4.0 International License.

Table 1. Characteristics of the study participants

Variable	Number	Percentage (%)
Sex		
male	3133	49.4
female	3214	50.6
Father education		
Primary school or illiteracy	1361	21.4
Secondary school	4313	68
College or above	673	10.6
Mother education		
Primary school or illiteracy	2602	41
Secondary school	3262	51.4
College or above	483	7.6
Family style		
Nuclear family	4346	68.5
Single-Parent Family	1431	22.5
Three generations living under the same roof	327	5.2
Divorced family	123	1.9
Living alone	120	1.9

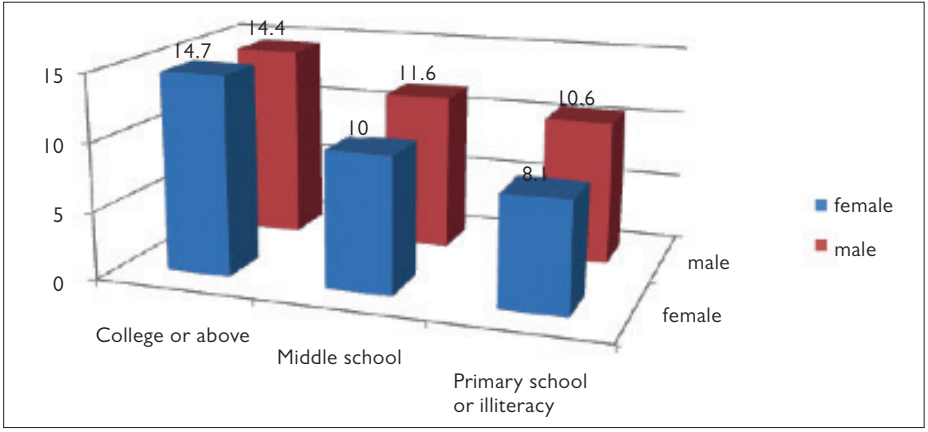

Figure 1. Prevalence of receiving HIV health education among adolescents by sex and father education

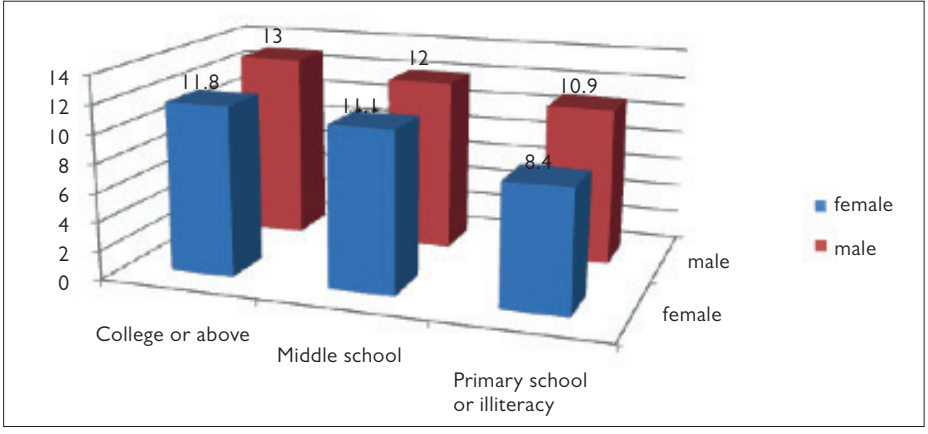

Figure 2. Prevalence of known HIV among adolescents by sex and mother education

ZheJiang province and 3 from Wuhu city, Anhui province) in China during the 2013-2014 school year. A random sampling was use to select the school from Wuhu and Jiaxing city, respectively. Before this study, we had taken the permission of school administration, due consent of parents of the students was taken to administer a questionnaire to their children, and the data collection was approved by Wannan Medical College Ethics Committee.

The questionnaire contained socio-demographic data, sexual experience, attitudes and knowledge with regard to sexual health including HIV. The questions on sexual experience, attitudes and knowledge with regard to sexual health including HIV are as follows: Have you read pornography books, film or other materials in the past 12 months? Have you received sexual health education in school? Have you had any experience with hugging? Have you had any experience with kissing? Have you had any experience with caressing? Have you ever had sexual intercourse? Have you ever had forced sexual intercourse? Have you received HIV health education in school? Have you heard of HIV? If your friend were HIV positive, would you continue your friendship with him/her? If a student is HIV positive, should she/he be allowed to continue his/her studying in school? Do you know which of the following pathogens cause AIDS: bacteria, virus and fungus? The identities of the students were kept confidential.

Analyses were performed using Epidata3.0 software and Microsoft Excel 2007 software.

Results

6700 of the students were interviewed in 7 secondary schools. Due to 353 questionnaires were not complete or did not contain demographic data, they were excluded from the analyses. Thus, the valid questionnaires of 6347 students were used in this study. Table 1 shows the characteristics of the study participants.

The participants' ages range from 9 to21 years and the mean is 14.83±1.63 years. Among all, 3214 (50.6%) students were female and the rest were male. In terms of education level, the majority of the parents of the participants were illiterate, primary or secondary school graduates. 1.9% of the participants came from a divorced family and 68.5% of them from a nuclear family.

As illustrated in Table 2, 65% of male and 71% of female students had read pornography books. Overall, the knowledge about HIV caused by virus was high for male and female students. In

Table 2. Knowledge, attitudes and practices related to HIV/AIDS in the past 12 month

Questions with positive response	Male Number	N=3133 Percentage (%)	Female Number	N=3214 Percentage (%)
Have you read pornography books, film or other materials in the past 12 months? (yes)	2177	69.5	2281	71.0
Have you received sexual health education in school? (yes)	293	9.4	319	9.9
Have you had any experience with hugging? (yes)	805	25.7	568	17.7
Have you had any experience with kissing? (yes)	353	11.3	181	5.6
Have you had any experience with caressing? (yes)	355	11.3	127	4.0
Have you ever had sexual intercourse? (yes)	845	27.0	578	18.0
Have you ever had forced sexual intercourse? (yes)	1552	49.5	1876	58.4
Have you received HIV health education in school? (yes)	366	11.7	324	10.1
Have you heard of HIV? (yes)	2354	75.1	2891	90.0
If your friend is HIV positive, would you continue your friendship with him/her? (Yes)	668	21.3	400	12.4
If a student is HIV positive, should she/he be allowed to continue his/her studying in school? (Yes)	1039	33.2	694	21.6
Do you know which of the following pathogens cause AIDS: bacteria, virus and fungus? (virus)	2582	82.4	3099	96.4

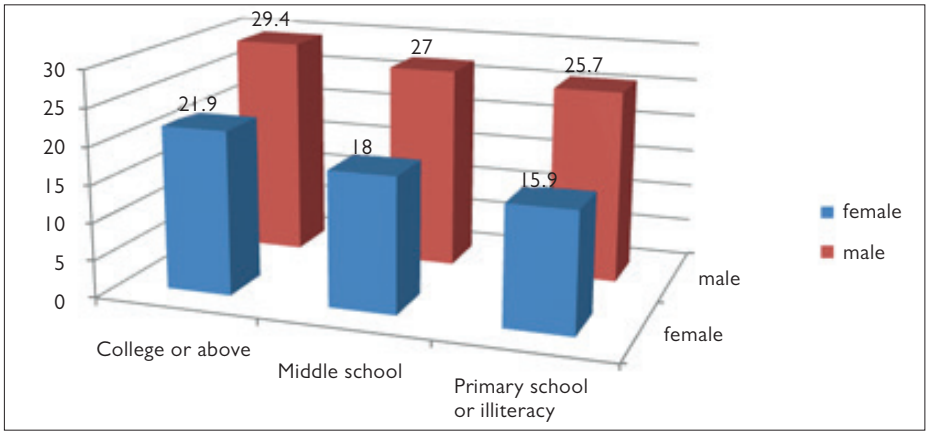

Figure 3. Prevalence of sexual intercourse among adolescents by sex and father education

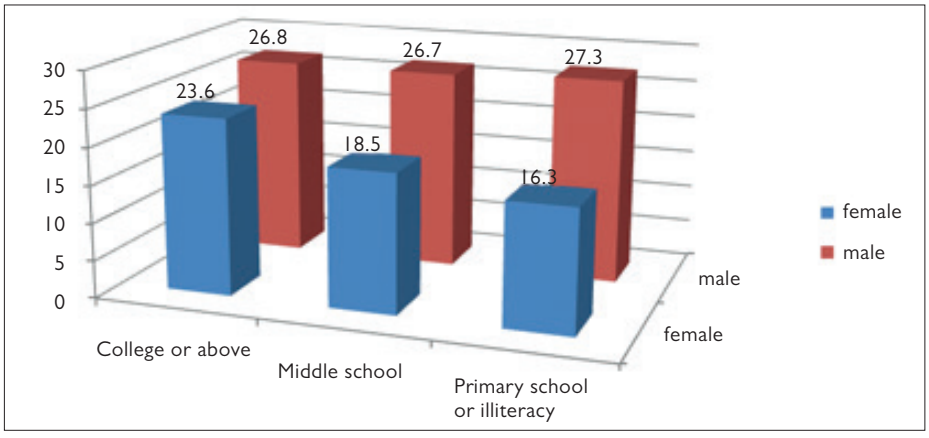

Figure 4. Prevalence of sexual intercourse among adolescents by sex and mother education

terms of intimate contact, 25.7% of male and 17.7% of female students reported that they had a history of hugging; 11.3% of male and 5.6% of female students reported that they had an experience of kissing; 11.3% of male and 4.0% of female students reported that they had an experience of caressing; 27% of male and 18% of female students reported that they had an experience of sexual intercourse, 49.5% of male and 58.4% of female students reported to have been forced to have sex. Accordingly, 75.1% of male and 90% of female students heard of HIV. However, the majority of the students did not received sexual or HIV health education in school, and less than half of the students showed positive attitudes on issues such as: If a friend is HIV positive should be continue their friendship with him/her; if an HIV-positive student should be allowed to continue her/his studying in school.

Figure 1-2 showed the prevalence of receiving HIV health education among adolescents by sex and parents educational level. Figure 3-4 showed the prevalence of sexual intercourse among adolescents by sex and parents educational level. Figure 5 showed the prevalence of sexual intercourse among adolescents by sex and family style. The results revealed that the prevalence of known and sexual intercourse is increasing with education level of father or mother. Highest prevalence (47.9%) of sexual intercourse was found among male adolescents who come from divorced family.

Discussion

The most serious finding in the present study was that about half of both males and females reported to have been forced to have sex. The possible reason for the number of students who have had forced sexual intercourse is higher than the number of students who have ever had sexual intercourse is that having sexual intercourse mainly refers to consensual sexual intercourse. It is very important to make youngsters understand their right to firmly deny being part of an undesired sexual encounter and also that forcing someone to have sex is grave offence that will be dealt with in a most strict possible manner. Several socio-demographic, family, and peer factors were associated with having intercourse. Those more likely to engage in premarital sex were older; majored in art; were from one-child [8], richer and/or divorced

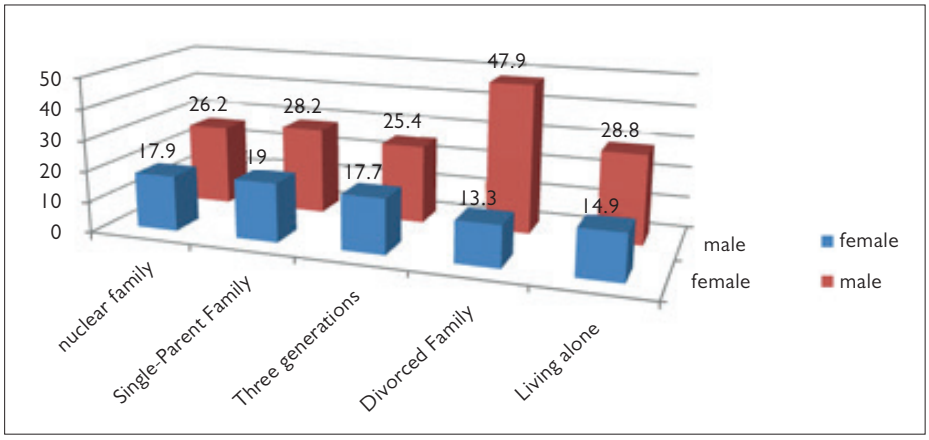

Figure 5. Prevalence of sexual intercourse among adolescents by sex and family style

families; had a mother with university or above education; had parents with a strict disciplinary style; had secondary-school close friends falling in love; and had current close friends living with boyfriends [11]. Our study also found that the highest prevalence (47.9%) of sexual intercourse was male adolescents who came from a divorced family. Interventions to protect young from sexually transmitted diseases need to target early sex education and address peer and parents influences. However, it seems surprising that the number of students who have had sexual intercourse is quite higher than the number of students who have experience of kissing, which need further research in future.

Another finding of our study was that self-reported sex education among secondary school students is quite low. Thus, in the current scenario, sex education and awareness are paramount. Sex education can help children transform into well-adjusted adults with established sexual identity, functioning, and ability. However, some researchers found that sex education program did not alter students' attitudes about premarital sex or monogamy among college students. We should strengthen sexuality education in other ways for secondary school students, which should comprise of physiological, psychological and social issues related to sex.

From our results, we observed that 65% of male and 71% of female students had read pornography books. Previous study results documented that the reproductive health service is lagging behind current attitudes and demands of university students [12]. The possible reason maybe that lack of sexuality education lead students to seek information about their bodies and the sexual act from misinformed sources like peers, media, and pornography [13]. Communication on sexual and reproductive health issue between adolescent and their parent was low. School based education is important to improve adolescent parent communication about sexual and reproductive health issues [14]. Thus, it is important to develop an open and healthy approach towards sex and sexuality and assist students to make well-thought judgments.

This study has several limitations. Direction of effects cannot be determined in correlation research. Retrospective reports of sexual behavior are subject to recall bias.

In conclusion education of the students on HIV /AIDS seems poorer at the secondary school in certain areas of China; more attention should be paid to those of senior grade students and students from divorced families.

Ethics Committee Approval: Ethics committee approval was received from the Ethics Committee of Wannan Medical College for this study.

Informed Consent: Informed consent was obtained from patients who participated in this study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – Y.Y.; Design - Y.Y.; Supervision - Y.Y.; Funding – W.L., L.H., Y.Y.; Materials – Y.J.; Data Collection and/or Processing – Q.G., D.G.; Analysis and/or Interpretation – L.H.; Literature Review – L.W.; Writing – X.R.; Critical Review – L.H.; Other – W.Lu.

Conflict of Interest: The authors have no conflict of interest to declare.

Financial Disclosure: This research was supported by secondary -young fund scientific research nature projects of Wannan Medical College (WK201301), humanities and social science research project of the Education Department of Anhui (No. 2011-sk257) and Anhui College of Humanities and Social Sciences Key Research Base Project (No. SK2014A110).

References

1. Zou Y, H Yan, H Wu, R Chen, D Huang, S Li; Female undergraduate fine arts students: A high-risk population for multiple sexual partners, unwanted pregnancy and sexually transmitted infections in china. Eur J Contracept Reprod Health Care, 2013. 18(2): 127-36. [CrossRef]
2. Ma Q, M Ono-Kihara, L Cong, et al. Early initiation of sexual activity: A risk factor for sexually transmitted diseases, hiv infection, and unwanted pregnancy among university students in china. BMC Public Health 2009; 9: 111. [CrossRef]
3. Zhang L, Gao X, Dong Z, Tan Y, Wu Z. Premarital sexual activities among students in a university in beijing, china. Sex Transm Dis 2002; 29: 212-5. [CrossRef]
4. Chi X, Yu L, Winter S. Prevalence and correlates of sexual behaviors among university students: A study in hefei, china. BMC Public Health 2012; 12: 972. [CrossRef]
5. Chen JQ, Han P, Lian GL, Dunne MP. Dunne, [prevalence of childhood sexual abuse among 2508 college students in 6 provinces of china.]. Zhonghua Liu Xing Bing Xue Za Zhi 2010; 31: 866-9.
6. Häggström-Nordin E, Hanson U, Tydén T. Sex behavior among high school students in sweden: Improvement in contraceptive use over time. J Adolesc Health 2002; 30: 288-95. [CrossRef]
7. Chi X, Hawk ST, Winter S, Meeus W. The effect of comprehensive sexual education program on sexual health knowledge and sexual attitude among college students in Southwest China. Asia Pac J Public Health 2015; 27: NP2049-66. [CrossRef]
8. Li S, Chen R, Cao Y, Li J, Zuo D, Yan H. Sexual knowledge, attitudes and practices of female undergraduate students in wuhan, china: The only-child versus students with siblings. PLoS One 2013; 8: e73797. [CrossRef]
9. Song Y, Ji CY, Xing Y, Hu PJ, Chen TJ, Zhang L. [Study on the characteristics of sexual intercourse debut and its influencing factors among college students in 18 provinces in china]. Zhonghua Liu Xing Bing Xue Za Zhi 2011; 32: 134-7.
10. Song Y, Ji CY, Hu PJ, Xing Y, Zhang L, Chen TJ. Comparative study of sexual behaviors of high school students between urban and rural china]. Beijing Da Xue Xue Bao 2013; 45: 376-81.
11. Yan H, Li L, Bi Y, Xu X, Li S, Maddock JE. Family and peer influences on sexual behavior among female college students in wuhan, china. Women Health 2010; 50: 767-82. [CrossRef]
12. Chen B, Lu YN, Wang HX, et al. Sexual and reproductive health service needs of university/college students: Updates from a survey in shanghai, china. Asian J Androl 2008; 10: 607-15. [CrossRef]
13. Kapamadzija A, Bjelica A, Segedi D. [Sex knowledge and behavior in male high school students]. Med Pregl 2000; 53: 595-9.
14. Ayalew M, Mengistie B, Semahegn A. Adolescent - parent communication on sexual and reproductive health issues among high school students in dire dawa, eastern ethiopia: A cross sectional study. Reprod Health 2014; 11: 77. [CrossRef]