

An Investigation on Sexual and Reproductive Health Knowledge Among College Students in Guangzhou City

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Abstract: To inquiry the status of in awareness, behavior and attitude of sexual and reproductive health of college students in Guangzhou city, and to provide scientific basis for the promotion and education of sexual and reproductive health in college. An investigation was carried out on this issue. Questionnaire survey was used as mainly method that involved 608 students from five universities as respondents. Feedback data show that students had better awareness of condom use (92.60%) and contraception in physiological safety period (61.51%), but had lower awareness of subcutaneous implantation (4.6%), emergency contraception (28.13%) or partial short-acting oral contraceptive (30.59%). Some knowledge of syphilis (89.64%) and gonorrhea (69.41%), but lack of knowledge of condyloma acuminatum (28.61%), non-gonococcal urethritis (17.10%), vaginitis (26.64%) and other venereal diseases. Lack of specific skills to prevent unintended pregnancy and sexually transmitted diseases, only 25.33% of students know the correct use of condoms. College students' knowledge of sexual and reproductive health is not optimistic, and there is a certain misunderstanding of knowledge, to prevent unintended pregnancy, prevention of sexually transmitted diseases and other related skills are far from enough. Colleges and universities should strengthen the publicity and education of sexual and reproductive health knowledge of college students, enhance their consciousness and ability of youth health, and ensure their physical and mental health.

Keywords: College Students, Sexual and Reproductive Health, Sexually Transmitted Diseases

1. Introduction

With the development of social economy and modern media information technology, people's sexual concept is increasingly open, and premarital sexual behavior is accepted by more and more people [1-3]. College students are at the keen time of sexual activity, and they are faced with sexual and reproductive health problems such as sexual demand, sexual behavior, pregnancy, abortion and sexually transmitted diseases in the process of opposite-sex interaction and love, which have aroused wide social concern [4-6]. Nowadays, major United Nations agencies, international organizations and non-governmental organizations include adolescent health issues into their main areas of work, and the International Planned Parenthood Federation has developed Vision 2020 to address the issue [7-8]. China also attaches

great importance to it. The China Family Planning Association has organized the youth health group in its work plan, and the Associations at all levels has also made youth health as their routine work [9-11].

However, due to the lagging state of sex education in China, college students generally have a low level of mastery of relevant knowledge and skills [12, 13]. Therefore, it is an urgent and long-term and arduous task to provide necessary knowledge of sexual and reproductive health for college students, strengthen the training of contraception, STD prevention and other related skills, enhance the reproductive health awareness and ability of college students, and form the correct concept of sexual and reproductive health ultimately.

In order to provide scientific basis for the promotion and education of sexual and reproductive health in Guangzhou universities, this study investigated the status quo of sexual and reproductive health cognition among Guangzhou

university students through questionnaire survey.

2. Respondents and Methods

2.1. Respondents

A total of 650 students (freshman and senior) which form five universities (Guangzhou University, Guangdong University of Education, Guangdong University of technology, Guangdong Polytechnic Normal University, South China Agricultural University) were randomly selected by random sampling method.

2.2. Methods

Questionnaire survey was adopted. The questionnaire of sexual and reproductive health knowledge in universities was compiled according to the related thesis of Lin Chaoxiong, Dang Yuhui *et al* [14, 15]. It consists of two parts. The first part is the basic information, including gender, grade and hometown of students. The second part is sexual and reproductive health knowledge. The questionnaire shall be

handed out by special person, filled out and collected on the spot. A total of 650 questionnaires were sent out, and 608 were effectively received with a recovery rate of 93.54%. Among them, 262 are male, 346 are female, 300 are in the first grade, 308 are in the fourth grade, 276 are from urban areas and 332 are from rural areas.

2.3. Statistical Analysis

Excel 2010 was used to input and sort the data, and software SPSS 17.0 was used for descriptive analysis and χ^2 test.

3. Result

3.1. Relationship Status of College Students

56.74% of the students clearly indicated that they are currently or have been in love with friends of the opposite sex. The proportion of the fourth grade students who have been in love (69.49%) is higher than that of the first grade students (43.64%), and the difference is very significant ($\chi^2=41.258$, $P<0.01$). Table 1 for details.

Table 1. Relationship status in different grades.

	The First grade (n=300)	The Fourth grade (n=308)	Total (n=608)
Currently in a romantic relationship with a friend of the opposite sex	65 (21.67)	136 (44.16)**	201 (33.06)
Have been romantically involved with a friend of the opposite sex	66 (22.00)	78 (25.32)	144 (23.68)
Never had a romantic relationship with a friend of the opposite sex	169 (56.33)	94 (30.51)**	263 (43.26)

Compared with the first grade ** $P<0.01$

3.2. Cognition of Contraception Among College Students

As for the methods of contraception, most of the respondents had good awareness of the use of condoms (92.60%) and the use of contraception during the menstrual safe period (61.51%), but the awareness of the use of “subcutaneous embedding contraception” (4.6%) and “Morning-after pill” (28.13%) or “Short-acting oral contraceptives” (30.59%) was low, Table 2 for details. There was no significant difference in the awareness of contraceptive methods among students of different grades, genders and hometown (P>0.05). However, there was a significant difference in the level of condom use among the fourth grade students ($\chi^2=23.495$, $P<0.01$), boys higher than girls ($\chi^2=52.491$, $P<0.01$), urban higher than rural ($\chi^2=14.162$, $P<0.01$).

3.3. Cognition of STD Among College Students

Most students have a certain cognition of syphilis (89.64%) and gonorrhea (69.41%), but the cognition of condyloma acuminatum (28.61%), non-gonococcal urethritis (17.10%), vaginitis (26.64%) and other venereal diseases is generally lacking. Most of the students realized that using condoms

(87.17%), reducing sexual partners (58.55%) and avoiding gay sex (60.03%) could reduce the risk of sexually transmitted diseases, but the knowledge of penicillin injection (5.26%) and genital flushing (36.51%) was insufficient. Cognition on prevention of sexually transmitted diseases method, for the use of condoms to prevent STD, awareness rate of the fourth grade students is higher than the first grade, the difference is very significant ($\chi^2=105.800$, $P<0.01$); For the high HIV infection rate among gay men, awareness rate in fourth grade students were higher than first grade students ($\chi^2=11.078$, $P<0.05$), awareness rate in female students were significantly higher than male students ($\chi^2=15.158$, $P<0.01$). In terms of the cognition of venereal diseases, the awareness rate of syphilis and gonorrhea in the fourth grade was higher than that in the first grade, and the difference was very significant ($P<0.01$); For the awareness rate of condyloma acuminatum, the fourth grade students were significantly higher than the first grade ($\chi^2=16.826$, $P<0.01$), the female students were significantly higher than the male students ($\chi^2=39.310$, $P<0.01$), the rural students were significantly higher than the urban students ($\chi^2=3.921$, $P<0.05$). Table 3 for details.

Table 2. Cognition of contraception among college students.

	Grade		Gender		Hometown		total (n=608)
	The first grade (n=300)	The fourth grade (n=308)	male (n=262)	Female (n=346)	Urban (n=276)	Rural (n=332)	
Use condoms for contraception I	276 (92.00)	287 (93.18)	242 (92.37)	321 (92.77)	260 (94.20)	303 (91.27)	563 (92.60)
Use condoms correctly	50 (16.67)	104 (33.77) **	150 (40.08)	49 (14.16)**	90 (32.61)	64 (19.28)**	154 (25.33)

	Grade		Gender		Hometown		total (n=608)
	The first grade (n=300)	The fourth grade (n=308)	male (n=262)	Female (n=346)	Urban (n=276)	Rural (n=332)	
rhythm method contraception	173 (57.67)	197 (65.26)	146 (55.73)	228 (65.90)	172 (62.32)	202 (60.84)	374 (61.51)
Morning-after pill	84 (28.00)	87 (28.25)	76 (29.01)	95 (27.46)	74 (26.81)	97 (29.22)	171 (28.13)
Short-acting oral contraceptives	84 (28.00)	107 (33.17)	68 (25.95)	118 (34.10)	81 (29.21)	105 (31.63)	186 (30.60)
subcutaneous embedding contraception	12 (4.00)	16 (5.19)	11 (4.20)	17 (4.91)	13 (4.71)	15 (4.51)	28 (4.61)

Compared with same group, *P<0.05; **P<0.01

Table 3. Cognition of STD among college students.

	Grade		Gender		Hometown		Total (n=608)
	The first grade (n=300)	The fourth grade (n=308)	male (n=262)	Female (n=346)	Urban (n=276)	Rural (n=332)	
Use condoms to prevent STD	252 (84.00)	278 (90.26)**	223 (85.11)	307 (88.73)	241 (87.32)	289 (87.05)	530 (87.17)
reducing sexual partners to prevent STD	165 (55.00)	191 (62.01)	167 (63.74)	189 (54.62)	154 (55.80)	202 (60.84)	356 (58.55)
Gay men have a high rate of HIV infection	160 (53.33)	205 (66.56)*	134 (51.15)	231 (66.76)**	164 (59.42)	201 (60.54)	365 (60.03)
Avoid premarital sex	108 (36.00)	121 (39.29)	104 (39.69)	125 (36.13)	106 (38.41)	123 (37.05)	229 (37.66)
Rinse genitals to prevent STDS	105 (35.00)	117 (37.99)	82 (31.30)	140 (40.46)	101 (36.59)	121 (36.45)	222 (36.51)
Penicillin injection to prevent STDS	12 (4.00)	20 (6.49)	14 (5.34)	18 (5.20)	15 (5.43)	17 (5.12)	32 (5.26)
Know Syphilis	255 (85.00)	290 (94.16)**	228 (87.02)	317 (91.62)	253 (91.67)	292 (87.95)	545 (89.64)
Know Gonorrhea	180 (60.00)	242 (78.57)**	178 (67.94)	244 (70.52)	187 (67.75)	235 (70.78)	422 (69.41)
Know Verruca Acuminata	63 (21.00)	111 (36.04)**	96 (36.64)	78 (22.54)*	68 (24.64)	106 (31.93)*	174 (28.62)
Know Colpitis	75 (25.00)	87 (28.25)	73 (27.86)	89 (25.94)	75 (27.17)	87 (26.20)	162 (26.64)
Know Urethritis	45 (15.00)	59 (19.16)	40 (15.27)	18.50 (18.48)	51 (18.48)	53 (15.96)	104 (17.11)

Compared with same group, *P<0.05; **P<0.01

4. Discussions

The investigated college students have a certain understanding of the basic knowledge of sexual and reproductive health, but it is not systematic and comprehensive, and even has some misunderstandings, which greatly increases the health risks of college students. Among 608 respondents in investigation, 39.97% of them did not know the risk of HIV infection from men who have sex with men. 36.36% of college students mistakenly believed that genital flushing and penicillin injection could prevent venereal diseases. The cognition about sexual and reproductive health of senior students is slightly higher than that of the first-year students, indicating that the students have acquired certain knowledge about sexual and reproductive health during the university. However, on the whole, the knowledge of sexual and reproductive health in universities in Guangzhou is not good, and the cognition level is not high enough, which is generally lower than that reported by Lin chaoxiong et al. [14] and similar to that reported by Fu xiaobing et al. [15]. It shows that the education of sexual and reproductive health knowledge in universities is not enough, or the education mode is unreasonable, and the effect is not obvious. In addition, college students to prevent unintended pregnancy, prevention of STDS and AIDS and other basic skills are seriously insufficient. Nearly 90% of the students know that using condoms can effectively prevent pregnancy and STDS, but only 25.33% of the students know the correct way to use

condoms; Less than 30% of students knew how to remedy contraceptive failure or unprotected sex.

5. Conclusion

Colleges and universities should become the main channel of sex education. In addition to systematic education of sexual and reproductive health knowledge for college students, targeted education should also be carried out according to the prominent problems prevalent among college students [16]. Innovation education mode at the same time, give play to the public of new media and the role of students, especially for college students, the girls and students who from the rural to focus on, To improve college students' sex and reproductive health, the effect of gender education on HIV/AIDS prevention and control, to help college students to master scientific and comprehensive sexual and reproductive health knowledge, to form a correct concept of sexual and reproductive health, To ensure the physical and mental health of all college students.

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