ORIGINAL ARTICLE

A STUDY ON THE KNOWLEDGE AND ATTITUDE ON SEXUAL HEALTH AMONG UNDERGRADUATES IN IPOH, PERAK.

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ABSTRACT

Background: Young adults in Malaysia are vulnerable to sexual health problems and unwanted pregnancies as sexual health issues are still a taboo subject in Malaysia. This study examines the knowledge and attitudes regarding sexual health among the undergraduates.
Methods: Data were obtained from a cross-sectional survey of 300 undergraduates in Ipoh, Perak. Their demographic data, sexual knowledge and attitudes were evaluated.
Results: The mean sexual knowledge mark was 29.68 ±5.6 out of total mark of 38 based on 15 questions, with HIV/AIDS being the most well-known STDs. Eighty two percent of the undergraduates obtained information of sexual health through the internet. Higher level economic status of the undergraduates had greater sexual knowledge.
Conclusion: There was adequate grasp of knowledge on sexual health among undergraduate especially health sciences students and students with higher income parents and the youths were very much aware of the importance of education on sexual health.

INTRODUCTION

Between the year 2005-2010, 472 new born babies were abandoned or dumped across Malaysia, of which 258 were found dead[1]. The prevalence of abortion among adolescents is one for every five pregnancies[2] and the rise of sexually transmitted diseases (STDs) among young adults, especially HIV/AIDS was alarming[3]. Youths are much more vulnerable to these sexually related health problems because they are prone to sexual experimentation[4].

World Health Organization (WHO) stated that everyone should achieve their optimal sexual health through a proper education on the subject[5]. However, sexual health has always been a taboo in the society and it is deemed as a sensitive issue to be discussed openly; be it among family members, friends, within the school compounds or university campuses[6,7]. The role of parents, family and friends as source of information were found to be negligible among university students in non-medical courses[8].

Hence this study aimed to determine the source of knowledge, level of knowledge, association between knowledge and socioeconomic background and attitude on sexual health among undergraduates in medical and non-medical courses in Ipoh, Perak.

MATERIALS AND METHODS

This is a cross-sectional study using self-administered questionnaire and answered anonymously among undergraduates aged between 18 to 24 years old from tertiary education institutions that offer health sciences and non-health sciences courses.

We used a standard sample size calculation formula with a constant of 1.96 at 95% confidence level and 5% alpha error assuming 50% of participants with good knowledge on sexual health and level of significance at 0.05 to determine the sample size. A total of 421 was calculated as minimum sample size required to participate in this study including the 20% non-respondents. However we had to limit the sample size to 300 (150 from institution that offer health sciences courses & 150 from institution that offer non-health sciences courses) because of our limitation in time and resources for data collection.

The questionnaire was compartmentalized into 3 parts; socio-demographic, knowledge (20 items) and attitude (13 items) on sexual health. Only similar items from both WHO and National Sexuality Education Standards [9] were included in the questionnaire. Items were closed ended, multiple response questions. It was validated to establish face validity and was piloted on 10 subjects. Errors were then corrected. Questionnaires were given to the respondents by hand on site and were collected back after about an hour later.

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) Version 22. The descriptive statistics for the demographic characteristics were calculated, with frequency distribution for demographic variables. Two sample t-tests and analysis of variance (ANOVA) were used to test the association between the age groups, gender, education courses, parents' income and responses of the undergraduates. The significance level was set to be $P<0.05$.

Ethical approval was obtained from the Institutional Ethical Committee of UniKL Royal College of medicine Perak before conducting this study. All the information gathered was kept confidential. Written informed consent was taken from all respondents before their participation in the study.

RESULTS

The result showed 81.3% of the respondents had good knowledge (more than 50% correct answers) on sexual health. The least correct answer was about the legal age for a man/woman to get contraception with only 42% undergraduates responded correctly. Concerning morning after pills, only 61.3% claimed know that there are contraceptive pills that can be taken soon after a sexual intercourse. It also showed that 89.3% of the young adults know that absence of menstruation is one of the signs of pregnancy. Only 48.3% and 59% were aware that the proper use of condom could prevent pregnancy and transmission of STD respectively. From the list of contraceptive methods given, oral contraceptive pills were the most commonly known among the respondents (84.7%), followed by IUD (70%), diaphragm (67%), implants (56.7%), cervical cap (55.7%), and the least known method was contraceptive patch (44.3%). Regarding sexually transmitted diseases, 96% answered correctly about the transmission of HIV/AIDS and STD and 84.3% knew about the aetiology of STDs. Out of the list of STDs given, almost all (92.3%) of the respondents have heard of HIV/AIDS, syphilis (67%), genital herpes (61%), hepatitis B (57.7%), gonorrhoea (54.3%), and chlamydia (48.7%). 94.7% were aware that risky sexual behaviour such as having multiple sex partners could increase the risk of getting STD and 90% knew that untreated STD could lead to a series of complications in the future.

On to their attitude about sexual health, 93.3% undergraduates disagreed to have sex before marriage and 83% of them agreed that contraception is both partners' responsibility. On usage of condoms, 49.7% agree that it is an embarrassing situation to purchase or obtain condoms and 83.3% claimed that they would continue with the pregnancy and raise the baby if they or their partner gets pregnant. However 6.7% of them chose to do abortion if such circumstance occurred. About 59.7% of undergraduates preferred friends to talk about sex followed by no one with 22.3%, siblings or cousins (8.7%), parents or guardians (7.0%) and school counsellor with only 2.3%, making them the least popular choice. As much as 77.7% undergraduates agreed to report to the authorities and parents if they were sexually abused by their partner. However regarding health check-up, only 36.7% of them agreed to visit the hospital or sexual health clinic to do a sexual health check-up if they were sexually active, while 13.3% of them have never heard of a sexual health clinic before. A total of 90.3% of them believed that sexual health education can teach about sexual rights and sexual abuse or assaults. A majority of undergraduates chose secondary school as the most appropriate stage to introduce sexual health education in Malaysia with 55.7% while only 3.7% of them think that sexual health education should not be taught in Malaysia.

Comparing the knowledge as shown in Table 2, age group 22-24 years old had higher mean score of 30.94(±5.63) than the age group 18-21 years old with mean score of 27.90 (±5.14) and there was significant difference of means between the age group ($P<0.05$). Undergraduates with different courses background also showed significant differences in the means. Health science background with higher mean of 33.29(±3.89) and non-health science background with mean of 26.07(±4.71). There was significant difference of means between the undergraduates' parents' incomes ($P<0.05$). Undergraduate with parents' income of >RM5000 had the highest mean score 31.61(±5.08), followed by parents' income of RM 3001-5000, RM 1001-3000 and <RM1000 with the mean scores of 29.65(±5.40), 29.24(±5.46) and 26.43(±5.88) respectively. As for means for gender, there is no significant difference of means between males and females in knowledge marks ($P>0.05$) with mean score of 30.09(±5.64) for females and slightly lower mean score of 29.21(±5.59) for males. Comparing the means of attitudes marks, all of the variables showed no significant differences of means ($P>0.05$) except for their backgrounds i.e., undergraduates from science and non-health science background that showed significant difference of mean ($P<0.05$).

DISCUSSION

Sources of Information on Sexual Health:

From this study, it is found that the internet plays a major role in providing information about sexual health (82%) whereas parents stand as one of the least popular sources among other sources of information (21%). This is consistent with nationwide study as well as study done in the east coast of Malaysia [10, 11]. This in is contrast with another study among secondary school children where peers were the most common source of information[12,13]. Though parents are not identified as the main source of information among youths, evidently positive parent-teen communication has been linked to less risky sexual behaviour among adolescents[1]. Hence, there's a need to educate the parents as well for the establishment of a more effective, trusted and reliable source of information on sexual health for our youths.

Socio-demographics Characteristics:

Age does play a role in determining the level of knowledge whereby in this study, there is significant difference between age groups (P value <0.05). Knowledge seems to increase with age and this finding is consistent with most of the current studies [11, 12]. It is in contrast with a study from Bangladesh where the younger generation was more knowledgeable as they may have received better education than the generations above them[14]. However, attitude level between the two age groups is not significantly different (P value > 0.05) though more from the older age group showed positive attitude. The discrepancy on the level of knowledge and attitude between females and males in this study is not significantly different (P value < 0.05) even though, female undergraduates were found to be more knowledgeable which is consistent with the results in other studies[15, 16]. We also found that non health science students scored lower in knowledge and attitude. This may make them less likely to practice safe sex compared to students who take up science related courses [17].

Knowledge on Sexual Health:

In general, the undergraduates in this study acquire good knowledge on sexual health in comparison to one study that showed a huge gap between the level of knowledge between university students and secondary school students[13]. For example, in this study 71.3% of the undergraduates responded correctly when asked whether a girl could get pregnant after one act of sexual intercourse whereas only 30% school students responded correctly for the same question. Across the board, there is lack of adequate basic knowledge on different types of contraceptive methods among the undergraduates as a majority of them have only heard of contraceptive pills compared to other methods. Only half of them (51.7%) in our study were aware that proper use of condom could prevent pregnancy while 84% of young adults in another study agreed that condoms are efficient in preventing pregnancy[15]. Statistics showed that by 2011, on the average, many Malaysian adolescents have become sexually active by the age of 14, so this warrants a need to educate Malaysians since their poor knowledge schooling years may carry risks of unwanted pregnancies or STDs at a much earlier age[18,19]. For questions on sexually transmitted diseases, as predicted most (92%) of the respondents knew HIV/AIDS very well compared to other STDs. But in another similar study, the level knowledge on other STDs fell to unsatisfactory levels due to so much emphasis being given to HIV/AIDS in terms of creating public awareness, allowing such huge discrepancy between HIV/AIDS and other STDs[12]

Attitude on Sexual Health:

The overall attitude score was good among the respondents where many of them agreed with statements that reflect positive attitude regarding sexual health. All most all of them (95%) agreed that it was wrong to have premarital sex which was contradictory to another study done in Croatia where only 5% of young adults agreed that premarital sex is unacceptable while the other

88% disagreed to it [15]. This huge difference may be mainly attributable to the differences in culture. However, in regards of safe sex practice, majority of the young adults in Croatia with the percentage of 84.8% believe that condoms are efficient in preventing pregnancy while only 48.3% of the young adults in this study agreed to the statement. Nearly half of them agreed that purchasing or obtaining condoms is embarrassing, which is consistent with the finding by previous study[19]. Social taboos are accountable for this as an Asian country like Malaysia with diverse religious beliefs generally disapprove premarital sex which eventually causes unmarried couples to feel embarrassed to procure condoms and seek information or services on sexual health[19]. Majority i.e. 83.3% of the respondents agreed to continue with the pregnancy and raise the baby together following an unplanned premarital pregnancy, a small number of them (6.7%) chose to do abortion. This is a matter of concern as that small portion may portray a significant number of young adults in reality who are not taking responsibility over their risky sexual behaviour. The fact that not even half of the young adults (36.7%) in this study agree to do a holistic health check-up if they were sexually active is significantly worrisome and a minority of them (13.3%) haven't even heard of a sexual health clinic that are mainly present in major cities. Regarding the implementation of sexual health education, most of the respondents agree that a comprehensive sexual education could reduce the number of unwanted pregnancy and STDs and educate the youths on their sexual health as proven in other developed country[20]. Hence, about 55.7% of them chose secondary school as the appropriate stage to implement sexual health education in this country.

LIMITATIONS

Nevertheless, the study has some major limitations; most of our respondents were Malays and Muslims so it was impossible to make reasonable comparison between different ethnic groups. There was also the tendency for bias due to sensitivity of this issue, so the actual finding may be masked. The interpretations made were based on a limited sample size, only from tertiary education institutions which may not be the representative of the whole population of young adults in Ipoh. Further studies with a larger sample size from the community, using more generalized variables are recommended to improve and confirm the findings of this study.

CONCLUSION

There was adequate grasp of knowledge on sexual health among undergraduate especially health sciences student and parents with higher income. Our youths were very much aware of the importance of sexual health education.

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Table 1. Demographic of the respondents.

Characteristic	***n (%)***
Age	
18 – 21	124 (41.3%)
22 – 24	176 (58.7%)
Gender	
Male	140 (46.7%)
Female	160 (53.3%)
Race	
Malay	277 (92.3%)
Chinese	6 (2%)
Indians	14 (4.7%)
Bhumiputra	3 (1%)
Religion	
Islam	281 (93.7%)
Buddha	5 (1.7%)
Hindu	11 (3.7%)
Christian	2 (0.7%)
Sikh	1 (0.3%)
Course	
Health science	150 (50%)
Non health science	150 (50%)
Parents' income	
<RM 1000	46 (15.3%)
RM 1001-3000	78 (26%)
RM 3001-5000	79 (26.3%)
>RM 5000	97 (32.3%)

Table 2. Mean of the knowledge and attitude marks of the respondents.

Variables	Knowledge Marks		Attitude Marks	
	Mean (±SD)	P Value	Mean (±SD)	P Value
Age Group				
18 - 21	27.90(±5.14)	0.000	15.65(±1.74)	0.594
22 – 24	30.94(±5.63)		15.75(±1.63)	
Gender				
Male	29.21(±5.59)	0.177	15.51(±1.81)	0.063
Female	30.09(±5.64)		15.88(±1.53)	
Course				
Health Science	33.29(±3.89)	0.000	16.09(±1.36)	0.000
Non Health Science	26.07(±4.71)		15.32(±1.86)	
Parents' income				
<RM 1000	26.43(±5.88)		15.80(±1.75)	
RM 1001-3000	29.24(±5.46)	0.000	15.64(±1.69)	0.594
RM 3001-5000	29.65(±5.40)		15.53(±1.91)	
>RM 5000	31.61(±5.08)		15.86(±1.41)	

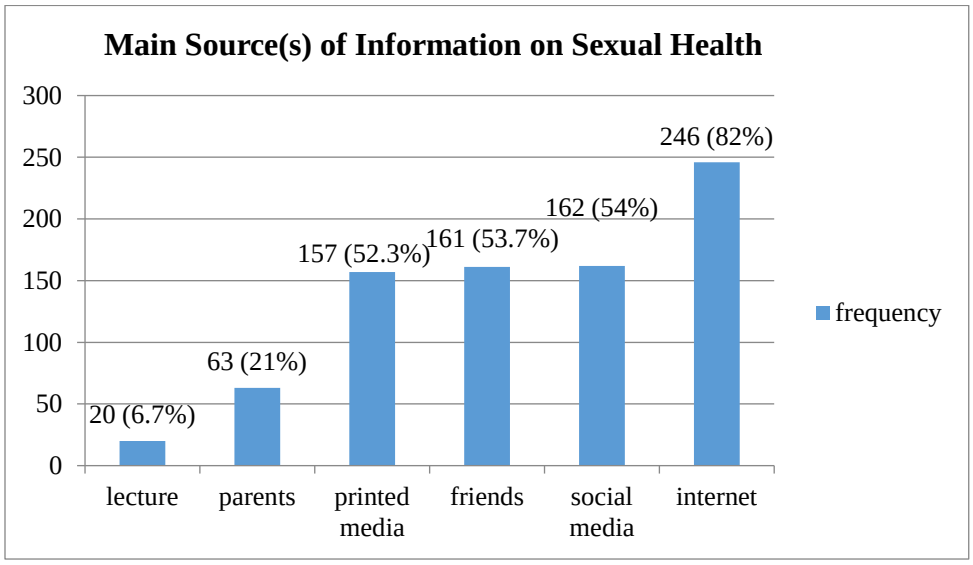

Figure 1. Main Source(s) of Information on Sexual Health

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