

# Impact of Sexual Health Course on Malaysian University Students

W Y Low, PhD.

Health Research Development Unit, Faculty of Medicine, University Malaya, 50603 Kuala Lumpur

## Summary

A sexual health course was offered and taught by academic staff from the Faculty of Medicine, University of Malaya during semester II of every year as a university elective course to other university students apart from medical students. The course covered a wide range of topics: adolescent sexuality, family planning and pregnancy, violence against women, alternative sexual behavior, physiology of sex, sex and the disabled, gender bias in sexuality, relationship and marriage, sexual dysfunctions, clarification of sexual attitudes and STDs and AIDS. The Sexual Knowledge and Attitude Test (SKAT-II) was used to measure students' pre- and post-course scores on sexual knowledge and attitudes. Fifty-four students who completed both the pre- and post-course tests showed a significant change in sexual knowledge and their attitudes towards sexual myths and autoeroticism. Sexual knowledge was also positively correlated with age, heterosexual relations, autoeroticism and sexual myths scores. However, sexual knowledge is negatively related to religiosity and the influence of religious beliefs on one's attitudes towards sexual matters. This study showed that the sexual health course offered does have a positive impact in increasing one's knowledge and changing one's attitudes towards sexual issues.

**Key Words:** *Sexual knowledge, Sexual attitudes, Sexual health, University students*

## Introduction

Sexuality means different things to different people. According to World Health Organisation<sup>1</sup>, sexuality is a central aspect of being human throughout life and encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction. Sexuality is experienced and expressed in thoughts, fantasies, desires, beliefs, attitudes, values, behaviors, practices, roles and relationships. Sexuality is influenced by the interaction of biological, psychological, socio-cultural, economic, and political factors. Further, sexual health is a state of physical, emotional, mental and social well being related to sexuality. Sexual health requires a positive and respectful approach to sexuality and sexual relationships as well as the possibility of having

pleasurable and safe sexual experiences and free of coercion, discrimination and violence<sup>1</sup>. Sexuality is constantly altered due to one's experiences throughout one's life cycle.

In adolescent and youth, sexual development is a normal part of growing up. For most, they go through this phase without problems. Sexual curiosity frequently occurs among adolescents and youth. To some, support and care is needed during this transition period to adulthood. The information on reproductive and sexual health may not be accurate and this may affect their decision-making and subsequently affect their practice.

In the local setting, information about sexual knowledge, attitudes and sexual behaviors among

This article was accepted: 16 March 2004

Corresponding Author: Wah-Yun Low, Health Research Development Unit, Faculty of Medicine, University Malaya, 50603 Kuala Lumpur

adolescents and youths is rather scanty. In one study, it was reported that 9% of the 1,181 unmarried adolescents aged 15-21 years reported having had premarital sexual intercourse and out of these 37% used any form of birth control<sup>2</sup>. One shouldn't be complacent with the low rate of premarital sexual activity and judging from the demographic trends towards late marriages resulting in a longer period after the onset of sexual maturity, wherein pre-marital sexual activities can occur. This has serious implications for adolescence pregnancies outside of marriage and its health and social consequences<sup>3</sup>. However, sexual education is still a very controversial subject in our society. There is still a lot of fear of cultural and religious resistance among the majority of institutions working with adolescent and youth programs.

With the amount of information pertaining to sexual issues and sexual violence in the local dailies, the demand for sex education is clearly needed to enable one to understand the multi-faceted dimensions of sexuality. With this in mind, a course on sexual health, eligible to students in all study years was offered in the University of Malaya. This course is aimed at increasing awareness, knowledge and promoting responsible sexual behavior. The Faculty of Medicine offers this course at every academic year in Semester II. Lecturers consist of academic staff from the Faculty of Medicine and other Faculties. Thus far, this is the first and only tertiary level course related to sexuality in the country<sup>3</sup>. Among its course contents are topics on reproductive health, including family planning and pregnancy, STDs and HIV/AIDS, relationship and marriage, sexual dysfunctions, alternative sexual behaviors, sexuality and disability, physiology of sex as well as gender issues in sexuality and violence against women. This paper reports on the effects of the sexual course on students' knowledge and attitudes towards sexuality utilizing a pre and post-test design.

## Materials and Methods

### Sample

The sample consisted of all students who enrolled for the Sexual Health course offered to other Faculties at the University of Malaya by the Faculty of Medicine, University of Malaya, Kuala Lumpur. It is the University policy that all Faculties offered elective courses to other Faculty students other than their own students. This University elective course offered in Semester II of every academic year is accredited with two credit points.

A total of 54 students took part in both the pre and post-test evaluation. As this is an anonymous questionnaire, students were identified and matched by a unique identifier. Participation in this study is entirely voluntarily. Eight-five students participated during the pre-testing. Some students may have dropped the course at the beginning, since students were allowed to drop courses within two weeks of registration. Also many did not turn up for the last lecture when the post evaluation was carried out as this was rather near the examination period. This could account for the difference in the number of students in both the pre and post evaluation.

### Study Instrument

A questionnaire based on the Sex Knowledge and Attitude Test Form II (SKAT-II) developed by Leif and Reed<sup>4</sup> was utilized in this study. Only the knowledge and attitude components of the SKAT-II were used in the present study with slight modification.

The Knowledge component contains a series of true/false items assessing knowledge on physiological, psychological and social aspects of human sexuality. Items include questions on pregnancy, contraception, factors influencing libido and differences between men and women, sexual practices/norms and factors associated with variations, sexual orientation or preferences and factors associated with variations. Each correct is given a score of one, hence 71, with a mean of 36. A high score correlates with greater knowledge.

The Attitudinal component comprises 31 alternative Likert-scale (5-point) items dealing with five major areas: (a) sexual activity outside marriage, (b) sexual activity within marriage, (c) sexual activity before marriage, (d) sexual variance, and (e) auto-eroticism. Responses to these items are measured on four-attitudinal scales<sup>4</sup>.

- Heterosexual relations scale (8-items) – measures attitude towards pre- and extra-marital heterosexual encounters. Range of possible score 1-40. A high score translates into permissiveness, i.e. the attitude that pre-marital intercourse is acceptable (or even desirable for both men and women) and that extra-marital relations are potentially benefiting, rather than harming the marital relationships of the persons involved. Low scores imply a conservative or disapproving attitude.

- Sexual myth scale (8-items) – measures the acceptance or rejection of commonly held sexual misconceptions, taboos and fallacies. Range of possible scores 1-40. A high score indicates a rejection of misconceptions while a low score indicates acceptance of sexual myths.
- Autoeroticism scale (7-items) – measures the attitudes towards the permissibility of masturbating activities. Range of possible score 1-35. A high score suggests that autoerotic stimulation is viewed as a healthy means of attaining sexual pleasure and relieving tension whereas a low score suggests the attitude that masturbation is unhealthy and should be prohibited.
- Abortion scale (8-items - measures views on social, medical and legal aspects of abortion. Range of possible scores 1-40. A high score is indicative of a liberal view towards abortion as an acceptable form of birth control, which should be permitted whenever desired by the mother, whereas a low score suggests a view of abortion as a form of murder, which should be under strict medical supervision.

Similar to the knowledge items, each response (agree/disagree) is awarded one point for the permissive attitude, or rejection of a misconception, yielding the range of scores as shown above.

The SKAT-II has been applied and validated in a previous study on Malaysian students<sup>5</sup>. The SKAT-II Attitudinal scales yielded reliability coefficients ranging from 0.83 for abortion attitude scale to 0.85 for sexual myths, heterosexual relations and autoeroticism attitudinal scales. The overall reliability coefficient for the total attitudinal scales was 0.93. The Cronbach alpha reliability for the SKAT-II Knowledge scales was 0.91. The English language instrument was translated into Bahasa Malaysia, using the back-translation technique<sup>6</sup>.

#### **Data Collection**

In the present survey, the questionnaire was self-administered and anonymous. Confidentiality was assured to all respondents. The students were also informed that there was no right or wrong answers, and requested to answer every item on the questionnaire truthfully. The questionnaire was administered twice in the lecture hall, supervised by the author. First, a baseline survey conducted at the preset of the first lecture, and a second survey at the end of the last lecture, two weeks prior to the University examination

period. A unique identifier matched students who have set for the pre and the post-survey.

#### **Data Analyses**

All statistical analyses were undertaken using the SPSS version 10 and a p-value of less than 0.05 was considered significant.

### **Results**

#### ***Socio-demographic Characteristics of the Students***

Table I shows the socio-demographic characteristics of the students. Age of these students ranged from 21 to 38 years old with a mean age of 24.20 years old (sd = 3.54 years). There are almost an equal proportion of male and female students. Majority of the students are Malays and Muslims. Almost all the students are still single and majority is in the 3rd year of study. Majority of the students stated that their religion is fairly and extremely important to them and some 71% of them stated that their religious beliefs influence their sexual attitudes.

#### ***Sexual Knowledge and Attitudes***

It is also found that age is significantly related with knowledge on human sexuality ( $r = 0.26$ ,  $p \leq 0.05$ ) albeit a weak relationship but not with any of the sexual attitudinal scales. Sexual knowledge is significantly related with heterosexual score ( $r = 0.44$ ,  $p \leq 0.001$ ), autoeroticism ( $r = 0.39$ ,  $p \leq 0.01$ ) and sexual myths ( $r = 0.69$ ,  $p \leq 0.0001$ ). This means that the higher the sexual knowledge, the more liberal and positive one is towards heterosexual relations, masturbation and rejection of the commonly held sexual beliefs. On the other hand, sexual knowledge is negatively related to religiosity ( $r = -0.33$ ,  $p \leq 0.01$ ) and the influence of religious beliefs on one's attitudes towards sexual matters ( $r = -0.28$ ,  $p \leq 0.05$ ).

Data obtained and evaluated from SKAT indicated the course was effective as shown in Table II. Knowledge score increased significantly and on attitudinal scales, the group moved from a lower, more conservative viewpoint to a more liberal understanding in the areas of autoeroticism and a rejection of the commonly held sexual myths. The lack of significant change regarding attitudes towards heterosexual relations and abortion is surprising since these two topics were also covered in the course. Results did indicate areas of attitudes modified by the course.

**Comparison with U.S Normative Scores**

The attitude and knowledge scores of these students were also compared with those of the U.S. national normative scores of graduate non-medical students, collected by the Center for Sex Education in Medicine of the University of Pennsylvania<sup>4</sup>. As shown in Table III, not surprisingly, all the attitudinal mean scores of these students were significantly lower than the U.S.

national normative scores of graduate non-medical students, likewise with the sexual knowledge scores, as shown in Table IV. This showed that the Malaysian non-medical students were much less tolerant on the various sexual attitudes scales as compared to the U.S. non-medical graduate students and less knowledgeable than the latter.

**Table I: Demographic Characteristics of Students**

Characteristics		N	Percent
Sex:	Male	26	48.1
	Female	28	51.9
Race:	Malay	26	48.1
	Chinese	13	24.1
	Indian	13	24.1
	Others	2	3.7
Religion:	Islam	26	48.1
	Buddhism	9	16.7
	Hinduism	9	16.7
	Christianity	8	14.8
	Others	2	3.7
Marital Status:	Single	49	90.7
	Married	5	9.3
Year of Study:	Second	4	7.4
	Third	49	90.7
	Fourth	1	1.9
Faculty:	Engineering	7	13.0
	Education	8	14.8
	Science	7	13.0
	Computer Science & IT	5	9.3
	Arts & Social Sciences	9	16.7
	Business & Accounting	1	1.9
	Law	1	1.9
	Islamic Studies	9	16.7
	Economics & Administration	6	11.1
	Cultural Studies	1	1.9
Importance of Religion*:	Not at all/not a lot	4	7.5
	Quite	5	9.3
	Fairly	11	20.4
	Extremely	34	63.0
Influence of religious beliefs on sexual attitudes#:	Not at all/marginally	5	9.3
	Sometimes	10	18.5
	Quite a lot	18	33.3
	A great deal	21	38.9

\* Question: How important is religion to you?

# Question: Do your religious beliefs influence your attitudes towards sexual matters

**Table II: Student's Sexual Knowledge and Attitudes**

	N	Pre-test (Mean ± SD)	Post-test (Mean ± SD)	T value	Sign
Sexual Knowledge	53	41.21 ± 8.45	44.06 ± 8.31	3.10	p ≤ 0.05
Autoeroticism	53	15.85 ± 5.58	19.02 ± 5.69	5.85	p ≤ 0.05
Heterosexual relations	53	14.87 ± 5.49	15.06 ± 5.02	0.31	Ns.
Abortion	53	20.47 ± 4.17	20.81 ± 3.27	0.62	Ns.
Sexual myths	53	26.43 ± 5.16	27.77 ± 4.68	2.31	p ≤ 0.05

Ns - not significant

**Table III: Comparison of attitudes scores of present study and the U.S. national norms for graduate non-medical students**

Comparison group	N	Heterosexual Relations		Sexual Myths		Abortion		Autoeroticism	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Present study	53	14.87	5.49	26.43	5.16	20.47	4.17	15.85	5.58
U.S. national graduate non-medical students	358	52.10	8.90	54.82	9.10	51.27	8.90	52.39	8.10
t-value		29.61		22.17		24.77		31.74	
Sign. level		p<0.0001		p<0.0001		p<0.0001		p<0.0001	

**Table IV: Comparison of knowledge score of present study and the U.S. national norms for graduate non-medical students**

Comparison group	N	Mean	SD	t value	Sign level
Present study true-false	53	41.21	8.45	9.29	p<0.0001
Normed true-false	358	53.91	9.40		

## Discussion

The study found a significant improvement in sexual knowledge and attitudes towards sexual myths and autoeroticism. It appears that taking this sexual health course does have an impact on one's sexual knowledge and attitudes. Elsewhere, sexual education program in schools have generally had positive effects on one's knowledge<sup>7-8</sup>. Similarly, findings in another study on 127 second year medical students were pre- and post-tested with SKAT were comparable with the national normative values (U.S.) of the population at large<sup>9</sup>. Not only were the students scores quite similar to those of the general population but only a slight change occurred in the scores from pre-testing to post-testing. In another study using SKAT, there was also a significant increase in knowledge and liberalization of attitudes among participants of a two-day human sexuality seminar<sup>10</sup>. The wide scale introduction of

sexual health education should improve one's behavior through correct knowledge of biology and the risks of unwanted pregnancy. The largest attitude change occurred in increased liberalness towards masturbation. This is probably due to the fact that masturbation is the area most relevant to student's current personal developmental issues (of those assessed by the SKAT) and thus, the areas most fluid and open to change at present. Although other sexual attitudinal change was not an immediate outcome of the course, perhaps these variables will change on a long-term basis.

Level of sexual knowledge was also found to increase with age. This is not surprising that as one gets older, sexual curiosity and one's own sexual development leads one to explore and seek for more information pertaining to sexual issues. Apart from that, this could be attributed to the sensitization on teachers on the need and rationale for a study addressing sexual health

knowledge. Thus, overall it justified the benefits and favorable position of the university, what more the schools, as a media for sexual health education in this socio-cultural setting. Unwanted pregnancies, abortion and the threats of HIV and AIDS which are burden of reproductive and sexual ill health warrants the promotion of sexual health education programs or family life education programs that target the adolescents and youths. Policies and programs actions could also help to increase one's knowledge on reproductive and sexual health. Such strategies should counter the pressure on adolescents to become sexually active or to be placed at risk of reproductive and sexual ill health, which comes from both the media and peers. Sexual education could also help to promote healthy sexual behaviour.

Knowledge level was also found to be negatively related to religiosity. It has been found that the formal practicing of religion was the most associated with lower levels of knowledge<sup>11</sup>. Similarly, it was also found that religious affiliation clearly differentiate attitudes of the nurses surveyed<sup>12</sup>. Likewise, in another study assessing the relationship between background and socio-demographic variables attitudes toward controversial aspects of human sexuality and sex knowledge among medical and nursing students, it was found that the background variable most strongly related to both attitudes and knowledge was frequency of attendance at religious services of any religious denomination during the past month, with those attending three or more times more likely to express negative attitudes and have lower sex knowledge scores<sup>13</sup>.

In comparison with the U.S. national norms for graduate non-medical students, one would expect that the Malaysian students would score lower than the U.S. students, since topics on sexual issues is still considered a taboo in this society and students are not exposed to such matters.

## Conclusion

The provision of sexual education to the Malaysian youths, particularly to the young and unmarried still

remains a controversial subject. It needs to be emphasized that there is no evidence that sexuality education should actually enhance promiscuity. Indeed, WHO<sup>14</sup> in their analysis of sexuality education programs in schools around the world concluded that sexuality education does not lead to earlier or increased sexual activity and even found that the onset of sexual activity among youth was delayed with sexual education, and among those already sexually active there was either a decrease in the extent of sexual activity or an increased use of "safe sex" practices. Furthermore, contraceptive and safe sex education for has been shown to be effective, particularly even before first sexual intercourse, i.e. in early adolescents or before puberty<sup>15</sup>. It has been established at the Population Conference in Cairo in 1994 that sexual education and the provision of contraceptive services should be the right of all those who are sexually active<sup>16</sup>. The issue continues to stir controversy and opposition in the country and where agencies are trying to initiate "youth friendly" programs.

Policies and legislations have also been implemented to promote adolescent sexual and reproductive health. Contributions in this field can be seen from both the governmental and non-governmental organizations, such as the Federation of Family Planning Associations Malaysia (FFPAM) and the Malaysian AIDS Council (MAC). Problems in reproductive and sexual health require that various preventive strategies be put in place. The findings of this study point clearly to the need for on-going education for students in matters related to sexuality, with the aim of raising awareness of sexuality, improving one's sexual and reproductive health knowledge and correct any misconceptions about sexual issues. Lastly, the findings also implied that there is a need for more comprehensive research in sexual and reproductive health and factors influencing knowledge, attitudes and behaviours.

## Acknowledgements

The author wish to thank all GMEW 1002 (Sexual Health) students in the year 2000 who participated in this study. This study was funded by a Vote F research grant from the University of Malaya, Kuala Lumpur.

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