

*The Level Of Knowledge And Attitude Related To Hiv/Aids Among Health Science Students  
(Tahap Pengetahuan Dan Tingkahlaku Terhadap Hiv/Aids Dalam Kalangan Pelajar Sains Kesihatan)*

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*ABSTRACT*

*HIV/AIDS is a worrying health issues among Malaysian young adult. This is probably due to the level of knowledge and attitude related to the disease. This cross-sectional study was conducted to determine the level of knowledge and attitude related to HIV/AIDS among health science students in a Malaysian public university. A total of 216 students were involved in this research (male and female). Respondents were recruited using stratified random sampling. Both level of knowledge and attitude related to HIV/AIDS was assessed by using HIV Knowledge Questionnaires (HIV-KQ). The questionnaires consisted of three parts. The first part was about socio-demographic, second part knowledge related to HIV/AIDS and the last part was about the attitude related to HIV/AIDS. Most of the respondents were Malays (67%), followed by Chinese (26%), Indians (5%) and others (2%). The results found that the level of knowledge about HIV/AIDS among 1<sup>st</sup> year and 2<sup>nd</sup> year health science students were low. The average of HIV/AIDS knowledge scores of all respondents were  $9.41 \pm 2.876$ . Their main source of information for HIV/AIDS came from internet, newspaper and television. Majority of the respondents showed more openness and positive attitudes towards HIV/AIDS. In conclusion, although the level of knowledge about HIV/AIDS among health science students in a malaysian public university is low, they showed positive attitudes towards HIV/AIDS. Thus more internet based and youth-friendly education program are required.*

*Keywords: Level of knowledge, Attitude, HIV/AIDS*

*ABSTRAK*

HIV/AIDS menjadi semakin prevalen dalam kalangan warganegara Malaysia. Hal ini mungkin disebabkan oleh tahap pengetahuan dan tingkahlaku terhadap perkara berkaitan penyakit ini. Justeru itu, kajian silang rentas ini dijalankan bagi menentukan tahap pengetahuan dan tingkahlaku berkaitan penyakit HIV/AIDS dalam kalangan para pelajar sains kesihatan sebuah universiti awam diMalaysia. Seramai 126 orang pelajar telah terlibat dalam penyelidikan ini (lelaki dan wanita). Responden dipilih secara rawak. Kedua-dua tahap pengetahuan dan tingkahlaku terhadap HIV/AIDS ini telah dinilai menggunakan boring soal selidik HIV/AIDS. Borang soal selidik ini mempunyai tiga bahagian. Bahagian yang pertama berkaitan dengan sosiodemografi responden, bahagian kedua mengenai pengetahuan berkaitan penyakit HIV/AIDS dan bahagian ketiga berkaitan tingkah laku berkaitan HIV/AIDS. Kebanyakan responden ialah Melayu (67%). 26% Cina, 5% India dan 2% adalah lain-lain bangsa. Hasil kajian menunjukkan bahawa tahap pengetahuan dalam kalangan pelajar tahun pertama dan tahun kedua adalah rendah. Nilai min bagi jumlah skor pengetahuan HIV/AIDS untuk semua responden adalah  $9.41 \pm 2.876$ . Majoriti pelajar menunjukkan tingkah laku yang positif mengenai HIV/AIDS.. Oleh yang demikian, kajian ini menunjukkan bahawa tahap pengetahuan berkenaan HIV/AIDS dalam kalangan pelajar sains disebuah universiti awam diMalaysia adalah rendah (9.41) dan majoriti pelajar menunjukkan tingkah laku positif mengenai HIV/AIDS.

Kata kunci: Tahap pengetahuan, tingkahlaku, HIV/AIDS

## INTRODUCTION

Globally, the declines in new HIV infections among adults have slowed, threatening further progress towards the end of the AIDS epidemic. Since 2010, the annual number of new infections among adults (15+) has remained static at an estimated 1.9 million. A worrisome aspect of this epidemic is that HIV/AIDS affects Malaysians in their prime productive years (Wong et al 2008). In 2015, the bulk of the infections (75%) comprise of young people aged 20 to 39 (Ministry of Health Malaysia, 2016). Young women aged 15–24 years are at particularly high risk of HIV infection, accounting for 20% of new HIV infections among adults globally in 2015, despite accounting for just 11% of the adult population (UNAIDS 2016). Poor, marginalized and disenfranchised youth suffer the highest burden of disease (Denno et al. 2015).

For a moderate Islamic country, some issues which are related to sex and sexually transmitted infections are considered as taboo and sensitive, and therefore are not discussed openly in Malaysia (Wong et al 2008). Despite this conservative background, adolescents and young adults maybe involved sexual activities as they are at the stage when interpersonal relationships are formed and sexual experimentation takes place (Talwar & Abd Rahman 2015).

Knowledge, attitudes and practices (KAPs) regarding HIV/AIDS is one important aspect in protection against the spreading of the disease. Adequate knowledge about HIV/AIDS is a powerful means of promoting positive attitudes and engaging in safe practices (Nubed & Akoachere 2016). Therefore, an assessment of KAPs among a population is highly necessary in planning the management and prevention of HIV, and as baseline to evaluate the success of prevention strategies. Young Malaysian adults were found to improve their level of general HIV/AIDS knowledge from unsatisfactory and moderate (Wong et al 2008; Rahnama 2009) to good and satisfactory (Talwar & Rahman 2015; Folasayo et al 2017). Although majority of Malaysian adolescent and youth were aware of HIV/AIDS there are still some misconceptions regarding its modes of transmission (Saad et al 2013, 2015, Kashtoori et al 2016) and prevention methods (Wong et al 2008; Saad et al 2015). As safe sex education is not taught in the Malaysian educational system, this will potentially increase the risk of spreading the disease.

Handling PLHIV will be a daunting task for health care students especially if they do not have sound knowledge, good attitudes and practices towards HIV/AIDS. They must be comfortable in facing and

managing PLHIV in order to promote health education and management. Thus it is important to explore their knowledge and attitudes on HIV/AIDS so that suitable program can be plan in future if necessary.

## METHODOLOGY

This cross-sectional study was conducted to determine the level of knowledge about HIV/AIDS among first year and second year health science students at Malaysian public university. Respondents were selected using stratified random sampling. Disabled or sick students are exempted from being the respondent of this research. Explanation about this research was given to the respondent. Students had signed the consent form to participate in this research. 216 students agreed to participate in the study. Each respondent was given a set of questionnaire which include information about social demographic characteristics, knowledge about HIV/AIDS and attitude towards HIV/AIDS. The questionnaire used to assess HIV knowledge scale were US-validated from Carey and Schroder (2002) which consisted of 18 items. The instruments will be scored dichotomously such as less than or equal to 13 over 18 questions is low level of knowledge and more than 13 is considered as high level of knowledge. The higher the score, the higher the level of knowledge about HIV/AIDS.

## RESULTS

Majority (67%) of the respondents were Malays followed by Chinese (26%), Indian (5%) and others respectively. The number of the respondent were equally distributed among the schools involved and between years of study. We found the health science students have a low average score on knowledge about HIV/AIDS score ( $9.41 \pm 2.88$ ). There is also no difference between the average score of first year ( $9.56 \pm 2.89$ ) when compared to second year students ( $9.26 \pm 2.87$ ).

Table 1 showed the percentage towards HIV/AIDS attitude among health sciences students participated in this study. These attitudes were based on six statements in the questionnaire and the respondents answered whether they “agree”, “don’t know” or “disagree” with the statements. Nearly three quarter (74.54%, n=161) “agree” that premarital sex is unacceptable, while only 10.18% (n=22) “disagree”. This indicated that majority of the respondents showed positive attitude towards HIV/AIDS albeit the answer

indicating a conservative opinion. Abortion is always a very tricky and debatable issue and this was reflected in Question 2 (Abortion can never be justified) when slightly more than half of the respondents (53.21%, n=115) answered agree, quite a number were still either unsure (27.53%, n=59) or disagree and (19.26%, n=42).

Table 1. The score of the knowledge about HIV/AIDS among first year and second year health science students in faculty of health sciences.

No	QUESTION	DISAGREE		DON'T KNOW		AGREE	
		n	%	n	%	n	%
1	Premarital sex is unacceptable.	22	10.2	33	15.3	161	74.5
2	Abortion can never be justified.	42	19.3	59	27.5	115	53.2
3	Homosexual persons should have the right to marry.	112	51.9	34	15.7	70	32.4
4	Masturbation is not a sin.	103	47.7	74	34.1	39	18.2
5	Sex is not morally acceptable if it is all about pleasure.	35	16.2	80	37.0	101	46.8
6	In matters of sexuality, my religion is my guide.	9	4.2	20	9.3	187	86.6

Approximately one third or 32.41% (n=70) agreed with statement that homosexual person should have the right to marry as compared to 51.85% (n=112) of the respondents that answered "disagree". This suggested the respondents exhibit openness to the subject of homosexuality despite the religious background of the country. In comparison, less than half of the respondents (47.67%, n=103) answered "disagree" on the statement "masturbation is not a sin" while 18.22% (n=39) answered "agree" and 34.11%

(n=74) answered "don't know". The same response trend was seen for statement 5 "Sex is not morally acceptable if it is all about pleasure" where 46.76% (n=101) of respondents answered agree, 37.04% (n=80) of respondents answered "don't know" and 16.2% (n=35) of respondents that answered "disagree". Statement 6 "In matters of sexuality, my religion is my guide" was related to religion and majority of respondents (86.57%, n=187) "agree" with the statement. Only 9.26% (n=20) answered "don't know" and 4.17% (n=9) answered

Table 2. Source of information for HIV/AIDS

Source	n	%
Internet	61	28.24
Newspaper	52	24.07
Television	44	20.37
Magazine	27	12.50
Radio	17	7.87
Others	15	6.94
Total	216	100

“disagree” indicating that religion plays an important role in the students life.

The main source of information regarding HIV/AIDS is from the internet (28.24%, n=61) followed by newspaper (24.07%, n=52) and television (20.37%, n=44) which are newspaper and television. Only 12.50% (n=27) of the respondents receive the information about HIV/AIDS from magazine, radio (7.87%, n=17) and other sources (6.94%, n=15) (Table 2).

## DISCUSSION

Based on the result, most of the respondents had low score for knowledge of HIV/AIDS with an average score of only  $9.41 \pm 2.88$ . Since majority of them are in the same age group of 20 to 22 years old and still can be considered young hence their exposure to HIV/AIDS information were similar. One study at two Finnish universities reported that the age of students was also significantly associated with their knowledge of HIV and AIDS. The youngest students (under 23 years old) had significantly less knowledge about HIV and AIDS compared with the older students (over 30 years old) which might be explained by personal life experience (Korhonen et al. 2012). Chew and Cheong, 2013 reported that clinical medical students had significantly better knowledge in HIV/AIDS when compared to the pre-clinical medical students, which would be expected as a result of more educational experience in medical school when compared to the pre-clinical medical students.

On the other hand, the result might also reflect that health or science education in primary and secondary schools do not include sufficient knowledge about HIV and AIDS (Huang et al., 2005). A recent systematic review found that school-based sex education provided an effective intervention for generating HIV-related knowledge and decreasing sexual risk behaviours among participants (Fonner et al. 2014).

Premarital as well as homosexuality are discouraged by religious faiths in this population. Religion has a strong influence and considered similar findings were reported by previous studies conducted amongst Nagoya University Graduate School of Medicine that state that religious issues included in HIV/AIDS activities (UNICEF 2009 Sexuality within marriage is permitted and socially accepted; sexuality outside marriage is prohibited and socially unacceptable (Musso 2003). Same-sex relationship is still illegal in Malaysia however abortion is not illegal if there is a risk or injury to the pregnant women (Thwaites 2011).

Most of our respondents are Muslims and they have been taught that masturbation is a sin (Smerecnik et al. 2010).

Internet (28.2%) is the most likely medium used by the respondents to get more information about HIV/AIDS followed by newspaper (24.07%) and television (20.37%). This may be because internet is a prime choice for youth which provide them with the freedom to explore and access information that they find relevant and comprehensible (Agarwal & Sushma 2013). Besides, the wide coverage of internet which can be accessed anywhere and anytime also makes easier for people to search for information. Moreover, there is overwhelming evidence for the effectiveness of mass media such as internet, television and newspaper in raising awareness and increasing knowledge about HIV/AIDS in developing countries (Bertrand et al. 2006). In addition to being a major source of information, the Internet provides various communication platforms for people to exchange information, share thoughts, and provide emotional support. People at risk of contracting HIV/AIDS and people living with the disease, as well as doctors, teachers, researchers, and policy makers, contribute to the online discourse and glean useful insights from it. The flow of information on these digital platforms has become increasingly critical in terms of our sociocultural understanding of this epidemic (Jing Wen Zhang 2014). Although internet is one of the main resources of health information especially for young adults, but website content is not always trustworthy or validated (Beck et al. 2014). A worrying issue is that although two-thirds of young people did not look for health information on the Internet because of their distrust in this kind of information, the majority of young online health seekers (approximately 80%) trusted the information they found on the Internet (Beck et al. 2014). One strategy to overcome this problem is by providing high-quality health information through websites, forums, blogs, and social networks, which have been some of the most popular channels for health promotion among young people in the past 10 years (Burn et al 2010; Beck et al. 2014,).

## CONCLUSION

The results indicate that the level of knowledge among first and second year health science students were low. However, they showed more openness and positive attitude towards HIV/AIDS. Internet is fast becoming the main important tools in disseminating knowledge regarding HIV/AIDS particularly among Malaysian youth. Hence, more internet-based and youth-friendly

education program are required to improve the knowledge and attitude on HIV/AIDS in the hope it will restrain the spread of the disease.

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