Knowledge towards HIV Transmission and Prevention among Students in Malaysia

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ABSTRACT

HIV cases have always been something that is an issue in Malaysia, especially among young adults, and the government has always tried to educate Malaysians about HIV either with campaigns or infographics that they share in social media. Even with all that, it seems like HIV cases keep rising each year and the number is getting bigger especially among university students. This research was made to identify if university students know how HIV is transmitted to others and are aware of how to prevent HIV. The research is made using a quantitative survey method through the distribution of a Google Form on 125 volunteering respondents. The end of the research resulted in the respondents showed a significantly above-midpoint level of knowledge (m=3.24) and level of awareness is also high (m=3.16).

Keywords: HIV, transmission, prevention

INTRODUCTION

At the end of 2023, data collected for reported HIV cases is 135,035, while estimated numbers for people living with HIV in Malaysia are 85,283, and this data is collected across Malaysia (Deputy of the Ministry of Health Malaysia, 2023). This report has shown clearly how the number of people with HIV grows each year and how it affects society. HIV has always been very stigmatised by society because of their lack of knowledge on HIV itself. Based on the report, it has been highlighted that most of the HIV cases reported are 90% by men and only 10% are by women, which implies that HIV would not only affect men but also affect women, and if the woman is pregnant, the baby has chances to catch it too (Deputy of the Ministry of Health Malaysia,2023).

HIV is not something alien for Malaysians, but the causes of it and the way to prevent it have never been focused on. The question rises especially among young adults because most of the HIV cases that have been recorded are mostly from their age (Deputy of the Ministry of Health Malaysia, 2023). FRHAM has reported that 48% of HIV cases were among people aged 13-29, and this was back in 2021, and they mentioned that if there is no proactive engagement from colleges and universities to educate the students about sexual health and safe sex, there are high chances that the number will rise (Kenny, 2024). The concern here is because in Malaysia, they will avoid the topic related to sexual health, leaving the students with limited access to accurate knowledge for making decisions and avoiding risky behaviour.

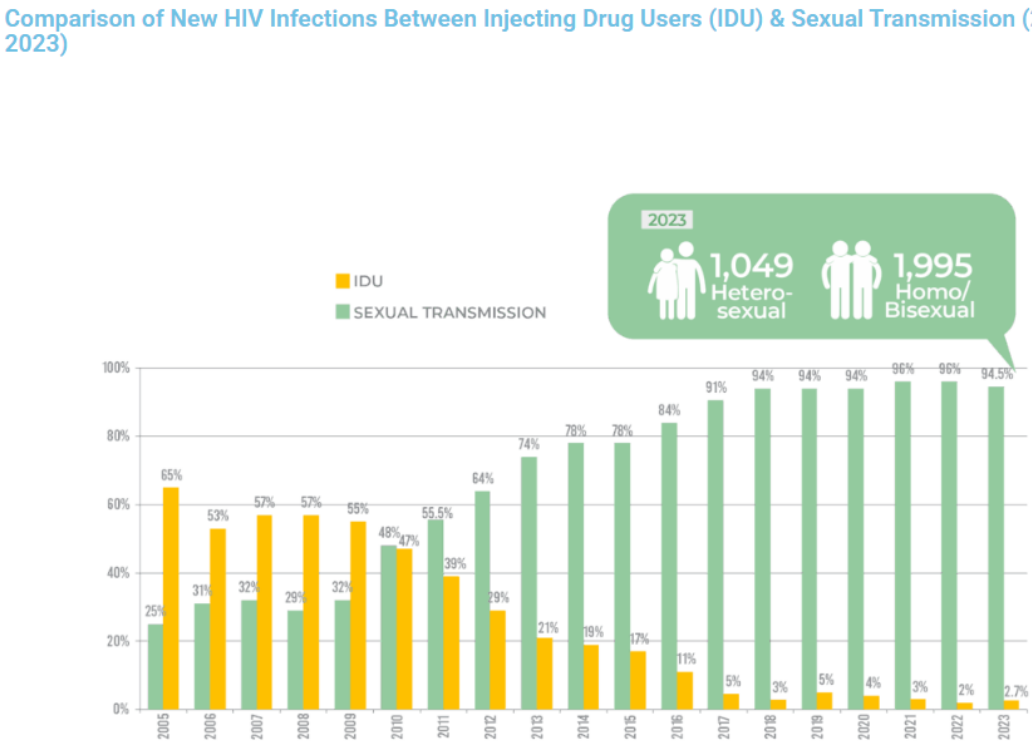
The cases keep rising each year, and the sign of it slowing down is not yet seen. Malaysian stigma around HIV is not helping the causes either because it has been reported that it is hard for HIV-positive people to seek help in the first place because of the stigma around it. A HIV positive person will always face discrimination from

the people around them, like refusing to eat or drink something that HIV positive person prepared (Malaysian AIDS Foundation, 2020). It is also mentioned about how people think HIV has no treatment, and not a lot of people know that the treatment is prevention. She can have kids even with HIV and the kids are all HIV-negative because the mother is going for treatment (Malaysian AIDS Foundation, 2020).

Problem Statement

The rising numbers of HIV cases among tertiary students shows that it is causing a lot of problems and the causes of why exactly these cases keep happening and the number keep getting higher each year. As mentioned by the Higher Education Ministry, the percentage of new HIV cases among public and private higher education is between 6.7% and 7.6%. Even with them implementing programmes involving awareness and prevention related to HIV infections, for some reason the number of new cases is not decreasing anytime soon. In 2021, FRHAM reported that 48% of new HIV cases were among teenagers and adults from age 13 to 29 (Kenny, 2024). This could be the effects of not educating our teenagers about sexual health and safe sex, which is crucial for their age because one mistake can cause big effects in their life.

This study is mainly focused on to what level students in Malaysia know about HIV transmission especially with all the misinformation that they can easily access on the internet these days. The rise of misinformation is synchronized with the rise of technology and social media and that is why it is important to make sure you get your information from a reliable source like WHO (World Health Organization) website and try to not always believe what influencers spout online because most of them do not have the qualifications to talk about this topics (Garett & Young, 2022,).



Source from Malaysian Aids Council 2025

The number of HIV Infections through drug users and sexual transmission also is still high in Malaysia. From this case, this study is trying to see the level of awareness towards HIV prevention especially among students in Malaysia. They might be aware of how exactly HIV is being spread but are they aware enough on how to prevent it. Yes, they might know about using condoms when having sexual intercourse but is that effective enough to prevent it? Is there any prescription for people with HIV to take so they can continue their life? Things like this are not really being talked about or promoted in Malaysia because the topic of HIV itself is still sensitive and this is why it is harder for a person with HIV to be knowledgeable enough to know what to do after they are HIV positive (Earnshaw et al., 2023).

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RESEARCH METHODOLOGY

- **Research Design**

This study is carried out in the form of a quantitative survey. An online survey was carried out and distributed via WhatsApp, Facebook, Instagram and Telegram. By using these social media platforms, we have a wider reach to collect more accurate information on how much students in Malaysia know about HIV transmission and prevention (Ridzuan, Ridzuan & Ridzuan, 2018).

- **Sampling Technique**

As for the sampling, this study is using a non-probability sampling technique which involves the purposive sample where the sample is chosen based on the objective (Bisht, 2024). According to Bisht (2024), purposive sampling focuses specifically on selecting contributors with characteristics that are relevant to the research question. This study aimed to see university students' level of knowledge towards HIV transmission and level of awareness on HIV prevention. Researchers decided to focus on university students, and the survey is distributed only to university students. To determine the numbers of sampling, Raosoft suggested 109 respondents with 70% confidence level. For this research, researchers manage to get 125 university students.

- **Research Measurement**

This questionnaire consists of 29 questions with 3 sections breakdown. From the first section it consists of 10 questions on demographic background and general information on their knowledge about HIV. The second section consists of 10 questions on identifying how far they know about HIV transmission. The third section, which is the last section, investigates whether they are aware of how to prevent HIV. The questions are using multiple choice questions (MCQ) and 4- point Likert scale. The questions are made easy for the respondents to understand and answer. The data were later on keyed-in on an Excel Spreadsheet (Ridzuan et al., 2017).

- **Data Analysis**

The methods used for data analysis are through Statistical Package of Social Science (SPSS) software version 30. The data analysis procedure includes creating a survey stage, Pilot test and data transferring. The survey is made up of questions that are connected to the study's research objectives. The questionnaire is distributed to the first 30 respondents in order to identify the reliability of the research. The survey is continued to complete the data of 125 responses and the data collected transferred to SPSS software for analysis and finding purposes. Researchers used descriptive statistics to see frequency, percentage and mean.

FINDINGS: RESULTS AND DISCUSSION

Table 1: Distribution of the respondents by demographic (n=125)

DEMOGRAPHIC	FREQUENCY	PERCENTAGE
Sex		
Male	86	68.8
Female	39	31.2
Age		
18 - 20	9	7.2
21 - 24	82	65.6

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25 - 26	21	16.8
27 - 30	9	7.2
30 and above	4	3.2
University		
IPTA	93	74.4
IPTS	32	25.6
Household Income		
B40 (RM 0 - RM5,249)	41	32.8
M40 (RM5,250 - RM11,819)	70	56
T20 (RM11,820 and above)	14	11.2
Current Residing Area		
Urban Area	91	72.8
Rural Area	34	27.2
On average, have you seen or heard about HIV cases in Malaysia?		
Once in <6 months	48	38.4
Once in <12 months	33	26.4
Once a year	28	22.4
Once in 2 - 3 years	16	12.8
Is anyone around you HIV-positive individuals?		
Yes	15	12
No	110	88
How do you think HIV is primarily transmitted?		
Sexual contact	84	67.2
Blood-to-blood contact	29	23.2
Mother-to-child transmission	7	5.6
Sharing foods or drinks	4	3.2
Others	1	0.8
What would you do if someone around you is HIV-positive?		

Offer emotional support and be understanding.	68	54.4
Avoid contact with the said person.	25	20
Consult a healthcare professional for advice.	32	25.6

The demographic data (n=300) reveals that the majority of respondents were male (68.8%) and aged 21–24 (65.6%), with smaller proportions in other age groups. Most were from public universities (IPTA, 74.4%), and over half belonged to the M40 income group (56%), followed by B40 (32.8%) and T20 (11.2%). A significant number resided in urban areas (72.8%), with the remainder in rural areas (27.2%). Regarding awareness of HIV, 38.4% had encountered related information at least once in less than six months, while 26.4% had done so in less than a year. Only 12% of respondents knew someone with HIV, with the remaining 88% not knowing anyone. Sexual contact was identified as the primary mode of transmission by 67.2%, followed by blood-to-blood contact (23.2%). When asked how they would respond to an HIV-positive individual, 54.4% stated they would offer emotional support, 25.6% would consult a healthcare professional, and 20% would avoid contact.

For the second section, a total number of 10 questions were asked to determine the level of knowledge towards HIV transmission.

Table 2: Level of Knowledge Towards HIV Transmission

Item	**Mean**
I believe sharing needles or syringes with an infected person can transmit HIV.	3.58
I believe unprotected sexual intercourse is a major mode of HIV transmission.	3.55
I believe HIV can be transmitted through blood transfusions.	3.40
I believe HIV cannot be transmitted through casual contact like hugging	3.30
I believe mother-to-child transmission of HIV can occur during pregnancy	3.30
I believe people with HIV can look perfectly healthy	3.21
I believe once a person is infected with HIV, they will develop AIDS	3.02
I believe using a public toilet seat cannot transmit HIV.	2.96
I believe sharing food or drinks with an HIV-positive person cannot lead to HIV	2.91
I believe mosquito bites cannot transmit HIV.	2.30
Overall	**3.24**

The level of knowledge towards HIV transmission among respondents, with an overall mean of 3.24, indicates a generally good understanding of key modes of transmission. Respondents strongly believed that sharing needles or syringes (m= 3.58) and unprotected sexual intercourse (mean: 3.55) are major modes of HIV transmission. They also demonstrated awareness that HIV can spread through blood transfusions in countries with inadequate screening (m= 3.40) and that mother-to-child transmission can occur during pregnancy, childbirth, or breastfeeding (mean: 3.30). Additionally, they recognized that casual contact, such as hugging or shaking hands, does not transmit HIV (m=3.30) and that individuals with HIV can appear healthy without symptoms (m=3.21). However, there was less certainty regarding misconceptions, such as using public toilet seats (mean: 2.96), sharing food or drinks (m=2.91), and mosquito bites (m=2.30) as modes of transmission. The data suggests a need to address these misconceptions to improve overall knowledge (Ridzuan et al., 2012). For

the third section, 8 questions were asked. These questions were asked to see the level of awareness towards HIV prevention among university students.

Table 3: Level of Awareness Towards HIV Prevention

Item	**Mean**
I believe regular HIV testing is crucial for early detection.	**3.43**
I believe early diagnosis and treatment of HIV can significantly improve the quality of life of people living with HIV	**3.40**
I think consistent use of condoms is an effective method of preventing HIV transmission.	**3.33**
I think mother-to-child transmission of HIV can be prevented through antiretroviral therapy during pregnancy.	**3.25**
I believe casual contact, such as hugging or shaking hands, cannot transmit HIV.	**3.33**
I believe people living with HIV who are on effective treatment cannot transmit HIV to others.	**2.97**
I think kissing cannot transmit HIV.	**2.91**
I think oral sex cannot transmit HIV	**2.6**
Overall	**3.16**

The respondents' overall awareness of HIV prevention, with a mean score of 3.16, indicates a high level of knowledge. The highest awareness was observed regarding the importance of regular HIV testing (m=3.43). Regular testing helps in early detection and prompt treatment, which can reduce the risk of HIV transmission and improve outcomes for people living with HIV. There was a strong understanding that casual contact, such as hugging or shaking hands, does not transmit HIV (m=3.33). This misconception is common, but it's important to note that HIV cannot be transmitted through casual interactions or surface contact, which helps reduce stigma. However, there were gaps in knowledge, as evidenced by lower mean scores for the belief that effective treatment prevents transmission (m=2.97).

While effective treatment lowers viral loads to undetectable levels, it's essential to educate people that HIV-positive individuals with undetectable viral loads can still transmit the virus in certain circumstances, especially without consistent treatment adherence. Misconceptions about transmission through kissing (m=2.91) and oral sex (m=2.63) were also noted. Although the risk of transmission through kissing is extremely low, the presence of open sores or bleeding gums may elevate this risk, making education on safer oral practices necessary. For oral sex, while the risk of transmission is lower compared to other sexual practices, HIV can still be transmitted through the exchange of bodily fluids, necessitating safer practices like using condoms or dental dams. These findings underscore the need for targeted education to bridge these knowledge gaps and enhance the understanding of HIV prevention methods.

CONCLUSION

Based on the findings, it can be concluded that the level of knowledge and awareness about HIV transmission and prevention among students in Malaysia is moderately high. The key findings can be summarized as follows:

While these results demonstrate a general understanding of HIV among students, there remains significant room for improvement. Misconceptions about transmission methods, such as those involving mosquito bites, casual contact, and oral sex, highlight the need for more focused education efforts. Despite some level of awareness, the rise in HIV cases among younger age groups, particularly among tertiary students, underscores a gap between

knowledge and behavior. This suggests that awareness campaigns and educational programs must not only inform but also actively engage students to translate knowledge into preventative actions.

At the individual level, everyone must take responsibility for their health by seeking reliable information about HIV. Regular testing, understanding safe practices such as consistent condom use, and early intervention can significantly reduce the risk of transmission and improve outcomes for those living with HIV. In addition, at the community level, community-based organizations and NGOs should lead the way in organizing awareness campaigns. Initiatives such as distributing educational pamphlets, hosting forums, and conducting workshops in schools and universities can foster a more supportive and informed environment.

Additionally, stigma reduction campaigns that emphasize empathy and correct misinformation are vital for creating a positive shift in attitudes. Furthermore, at the institutional and corporate level, institutions of higher education and businesses can contribute by developing engaging programs tailored to young adults. These could include partnerships with health organizations to provide accessible testing services, condom distribution, and seminars on sexual health. Corporations could further support by collaborating on promotional campaigns, such as offering incentives like discounts or free health check-ups to promote HIV awareness. Moreover, at the government and media level, the Malaysian government and media must take the lead in normalizing discussions around HIV, sexual health, and prevention methods. Public service announcements, campaigns featuring influential figures, and easily accessible testing centers are crucial in encouraging public participation. Social media platforms, in particular, offer an invaluable opportunity to reach young audiences with impactful and relatable content.

In conclusion, HIV remains a critical health issue in Malaysia, and addressing it requires a collective effort. By bridging gaps in knowledge and awareness and fostering an inclusive, informed, and proactive culture, Malaysia can reduce the stigma associated with HIV while advancing prevention and management strategies. Every small step counts, and the responsibility begins with each individual and organization contributing meaningfully to the cause.

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