

# KNOWLEDGE, ACQUISITION AND CONTRIBUTING FACTORS OF HIV IN SARAWAK, MALAYSIA

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**ABSTRACT;** *AIDS occurs due to the retrovirus HIV (Human Immunodeficiency virus). In short, it is a reduction of immunity and makes the body vulnerable to infections which can cause fatality. Lately, the spread of HIV/AIDS has shown an upward trend. The purpose of this paper is to provide information on the HIV trend in Kuching and provide guidance on how to successfully address the underlying factors that could influence the HIV contraction directly. The researchers have assessed how far is the understanding of PLHIV (people living with HIV) on HIV knowledge, the way of HIV acquisition in the Kuching community, and the underlying contributing factors of HIV transmission. A total of 35 PLHIV in Kuching have answered our survey voluntarily and they were amongst the different races, religions, and sex. The researchers used the quantitative descriptive method. Findings revealed an overall 73% of the participants possessed knowledge about HIV. The highest modes of HIV transmission were through unprotected sexual relationships. Peer influence, lack of family bonding, history of abuse, and not giving importance on the HIV risk factors despite knowing that the information is readily available, were the among highest underlying contributing factors for the PLHIV to be engaged with the HIV risk behaviors. Prevention among high-risk individuals and within the community is important as there is no drug to cure AIDS and no vaccine to prevent HIV. Discrimination and stigma make people more vulnerable to HIV. This pushes them to the margins of society, where fear and poverty make access to HIV healthcare services complicated.*

**Keywords:** HIV, knowledge, way of acquisition, factors, stigma, Malaysia

## INTRODUCTION

HIV infection has now become one of the global issues. It is continuously becoming one of the critical agenda in many nations because the prevalence of HIV still fails to be controlled even though there are a lot of implementation strategies to reduce its occurrence across the world. Human Immunodeficiency Virus can lead to the slow deterioration of the body's immune system. An individual with HIV will act like an ordinary person as they look healthy and can carry out the activities of daily living (ADL) normally. People living with HIV (also seen as PLHIV) have a low level of immune system functioning. HIV damages the immune system and it also interferes with the body capabilities in fighting organisms that will lead to other vulnerable diseases. HIV is a problem among young people as well as adults. The stigma and discrimination towards HIV patients are increasing in today's modern world. These people should be treated equally, protected, and given emotional as well as motivational support for them to feel more at ease in their healing time period. Neglecting and avoiding them will lead to an increase in HIV infections and more deaths. It is our responsibility to protect everyone as human rights are universal, and no one is excluded. This paper focuses on the PLHIV in Kuching. We had asked for their consent prior to the distribution of our online-form survey questions and hope to have more participants in our future research. we had formulated questions based on our three main objectives which are trying to investigate the level of knowledge these PLHIV have about HIV, the ways of HIV acquisition among the PLHIV, and also to acquire the underlying factors contributing to HIV infection among the PLHIV in Kuching.

AIDS patients often die not due to HIV itself. But it is caused by the side effects of the viral infection. Death occurs when the victim is exposed to various illnesses and other infections as the immune system are fully paralyzed due to HIV. Thus, knowledge of HIV, early detection of cases, health care, and healthy lifestyles are the main

fortress in order to face the threat of HIV. Sexual relationships, blood and bodily fluids contraction that has been contaminated with the HIV virus, and the mother-child transmission, are still the three basic ways to transmit these viruses from individual carriers to another person. AIDS is the last stage of HIV infection in a person when there is a distressed immune system that allows all the microbes and viruses to invade the AIDS victim [1].

Someone that has been infected with HIV does not necessarily experience the clinical AIDS symptoms immediately. AIDS takes between 5-10 years to develop. This term is called the incubation period whereby it is the duration of the virus to act on the white blood cells of the infected person until it destroys and disables and paralyzes the body's defense system. When the victim's resistance reaches the most disturbing level, there will be the signs and symptoms caused by a combination of weaknesses such as Kaposi Sarcoma, Mycobacterium Tuberculosis, Pneumocystis Carinii and Candidiasis [2].

AIDS is closely linked to the moral and social issues, and in this case, the cooperation of various agencies is very important in controlling and preventing the spread of this disease. AIDS can be afflicted by various groups of people regardless of age, race, color, religion, occupation, or ethnicity. Hence, more articles need to be published regarding AIDS such as the complications and dangers of this disease if it is not prevented, the way in which this disease can infect a person, those who are at high risk for this disease, and preventive measures that are being done in order to combat the disease [3].

Malaysia is no exception to bear the burden of HIV/AIDS over the last two decades. The first case of AIDS was found in the country during the month of December in 1986 [4]. The number of HIV cases reported from 1986 to 2015 was 108,519. The number of AIDS cases reported in the same period was 22,495. About 33% of the total cases involved youth aged 20 to 29 years old [5]. The increase in the HIV infection rate in Malaysia is generally contributed by

several groups. The evidence is based on a report released by the Malaysian AIDS Council and the Malaysia AIDS Foundation [5], which shows that HIV infection is largely contributed by the heterosexual group at 42%. This report also showed that homosexuals and bisexual contributors are the second highest contributor to HIV infection at 36%, followed by injecting drug users at 17%. HIV infection through mother-to-child and other means of infection recorded the lowest percentage at 4% and 1% respectively. This report clearly shows that there are some major groups that are the cause of increased HIV infections in the country. This is obviously a matter of concern if it is left unattended and undermined. Indeed, there are various interventions carried out by governments and non-governmental organizations (NGOs) in addressing HIV problems in the country. Among the intervention programs included is the implementation of the "Harm Reduction Program". The "Harm Reduction Program" is an approach implemented by the government as an effort to reduce the harms of HIV, hepatitis B, and C infections, while sharing syringes. The program's approach is also to reduce the harms of excessive drug intake through injection, as well as a crime as the result of drug addiction [6].

There are two important components under the "Harm Reduction Program" namely, the NSEP (*Needle & Syringe Exchange Program*) and the MMT (*Methadone Maintenance Therapy Treatment Program*). The NSEP was conducted by the non-governmental organizations at 17 sites throughout the country. The MMT has been implemented in the government and private hospitals and clinics nationwide (AIDS Action and Research Group, 2017). There is no denying that both programs under the Harm Reduction Program have achieved great success. HIV infection rates among drug users have dropped from 53% in 2006 to 19% by 2015 [7]. However, new HIV infections through sexual intercourse are seen increasing from 2009 to 2014. The latest statistics (up to 2015) showed that the number of new cases of HIV infection through sexual intercourse is 2,601. The total number of new cases involves heterosexuals, homosexual, and bisexual groups [5].

Based on the Pelan Tindakan Strategik: Akhiri AIDS (National Strategic Plan: Ending AIDS) for 2016-2030, the Malaysian government has put a goal to end the symptoms of AIDS by 2030 [6]. This goal is clearly in line with the Sustainable Development Goal under the third goal which is, 'Good Health and Well Being'. The established targets include ending the global AIDS epidemic by 2030 [8].

Children under the age of 15 represent 1 out of 6 deaths related to HIV/AIDS, and 1 out of 7 are newly HIV-infected across the world. A child under 15 dies due to AIDS-related illness every single minute of every day, a young man between 15-24 years old gets an HIV infection every 15 seconds, and 15 million children across the world became orphans due to AIDS. Since the beginning of the epidemic, nearly 70 million people have been infected with HIV and over 35 million have died of AIDS. Globally, 35 million people live with HIV infection by the end of 2011. It is estimated that 0.8% of adults aged 15-49 are living with HIV infection worldwide. Sub-Saharan Africa continues to outperform HIV's almost 1 in 20 adults, of which 4.9% are living with HIV worldwide [6].

There are many youth groups in Taiwan who do not have accurate information regarding HIV especially, on the

modes of HIV transmission. Efforts to prevent transmission of the HIV/AIDS epidemic need to involve families, education systems, mass media, and society. Researchers [9], found that the absence of unprotected sexual knowledge and unprotected sexual behavior are major factors in the spread of HIV infection. There are 35.4 million people living with HIV in 2012. These reminders are drastic as in 2001, only 29.4 million cases were reported. HIV is the leading cause of death in Africa. New HIV cases have increased by 33% since 2001, in 26 low-income countries. However, there are over 2.3 million new infections reported in 2012 or more than 6,300 cases per day. According to a report [8], more than a quarter of the United Kingdom is unaware that they live with HIV.

The KAP model has three main elements, namely knowledge, attitude, and practice. These elements are the basis of the KAP model. When one's knowledge is enhanced, it will be the driving force for that person to change his or her attitude. The change will take effect on the change of behavior (practice) of human beings. The KAP model is usually used in marketing, consumerism, and in evaluating health campaigns. Most of the previous studies conducted in the medical field used the KAP Model. There is previous research that studied knowledge, attitude and behavior using the KAP Model which is the study made by researchers [10] where he had utilized the KAP Model to study the knowledge, attitude, and practice of the Chinese nation against H5N1 illness.

#### **The Contributing Factors Of HIV**

Personal behavior towards HIV risk is determined by various factors of individual behavior and the environment. These factors can be divided into micro (molecular and biological changes in physical hormones), and macro (such as social, economic, political structures) levels. These factors often interact in the context of change in a person's behavior [11]. Even though the HIV disease has been identified, two decades ago, most of the prevention efforts are focusing on the medical aspects, while prevention efforts outside of the medical sector are still limited [12]. For example, Researcher [11] argues that medical technology, HIV testing, and counseling can help to reduce some of the risks of HIV; but, changing the behavior of an individual can only be achieved with social and environmental interventions. Therefore, social researchers actively strive to identify the socio-economic, cultural, and political structure weakness factors that contribute to risky behavior. Researchers [13], have analyzed the HIV risk factors by alcohol use and drug injection into three sociological perspectives which are the social construction theory, ethnomethodology, and conflict theory. The results showed that the elements of cultural values, history, and social background affect the minorities in the United States and caused many of them to get transmitted with HIV infection which is eventually caused by the use of alcohol and drug [13].

Researchers [14] used the theory of Syndemics to examine the factors of social misery and the misery of a person's life leading to the HIV risk amongst the young MSM (Men have sex with men) in America. His research contains a total of 598 young MSM men (between the age of 18 and 19) who are the Spanish-Americans and Africans residing in America. In this study, various mental health burden indexes (ie: suicidal thoughts, depression symptoms, loneliness) and drug use, are used as the measurement

model for HIV risk. The results were related to unprotected sex and emphasized the importance of studying the effects of a combination of psychosocial pressures against risky behavior. The factor of a person's suffering accompanied by poverty is associated with material misuse, traumatic behavior, and imprisonment. It is the main cause of HIV infection risk, especially through the injection method. Researcher [15], examines the phenomenon of HIV infection among the Indian women's diaspora ;particularly in the area of Kwa-Zulu Natal, South Africa. The study has found that the government has neglected in giving the awareness on HIV to the Indian women compared to white people and citizens of Africa that eventually caused less Indian people to care about the epidemic of HIV. The instability of the economic status amongst this woman restricts them to negotiate sexual protection rights. Most of the studies involving the diaspora of Indian and South Asian men, found that cultural factors, such as polygamy, accompanied by masculinity, and less knowledge on HIV, are the major risk factors for HIV infection [16].

In addition, the HIV risk factors in the South Asian region are linked to migration and immigration factors. For example, for the Bangladeshi and Nepalese communities which are hit by disasters [17], and the factor of political instability in Sri Lanka and Myanmar [18], promote the issue of refugees and increase the risk of HIV infection in the region. North India felt less secure with immigrants that come to the border areas such as Delhi, Kolkata, Mumbai, and Manipur because they are reported to be engaged in the activity of drug injection and MSM [19]. Whereas in Mauritius, the job factor which devotes the tourism sector, such as the nightlife activities, is associated with the exposing factors of HIV, like using marijuana and sex entertainment [20].

Researcher [21] points out the factor where the strategic geographical location in Southeast Asia as an area of production and distribution of drugs and encourage the people to be involved in social problems and drug addiction. For example, in Myanmar, the economic activity of the hill's native people is poppy plantation to feed their lives in the Golden Triangle, and this is linked as a cause that increases drug use and distribution to the neighboring countries including Malaysia. Researchers [22] has also stated in his books about the cultural shock factor, such as

## METHODOLOGY

This was a cross-sectional study conducted in Kuching, Sarawak for a duration of three months and applied the quantitative research method. The researchers chose to obtain the data from respondents via the Google-form answers application to maintain the anonymity of the details of the PLHIV, as they are a group of people that we need to protect their privacy and maintain the confidentiality of their identity. For the sampling procedure in Kuching, the sample was selected from one of the associations that is interlinked with AIDS in Kuching, which is the Sarawak AIDS Concern Society. The researchers distributed the online forms which have been sent to the PLHIV individually with a consent letter attached from the University. Before the surveys were distributed, the questions were formulated based on the objectives that the research group had discussed previously. The research conducted was based on three main objectives. The research questions covered the description

the unmonitored cultural adaptation in terms of the technology usage among the Malaysians, that opens the space for the young people to be engaged in HIV risk behaviors and social problems. Meanwhile, [23], had conducted a study on 486 unmarried young people in Malaysia, and they have identified the factors of staying far from family, live with career burdens, and the environmental stressors in the cities, as the major factors which drive their free sex lifestyles.

One of the major risk factors of MSM is anal sex which is done without protection compared to vaginal sex [24]. Koh's review shows that the ratio for acquiring the HIV infection for someone who is involved in sexual relationships with the use of condoms that is not consistent is 3.7 times higher than that with people who consistently use condoms. The reasons for using the condoms inconsistently are because they are unable to get the access to condoms in the places where they usually perform their sexual activity, ignorance or lack of knowledge regarding the transmission of sexually transmitted diseases, drug abuse, the failure in being aware of the sexual background of the spouse, frequent intercourse, as well as the attitude and issues of behavior [24]. According to researchers [25], the lack of knowledge in having safe sex, and the unprotected sexual act is the key factor in HIV transmission.

A study conducted by the researcher [26], found that family support is essential in building strong relationships among family members and thus it helps to improve the survival of family members in the face of stress and hardship in life. Studies conducted by researchers [27], found that family members who have strong family ties and relationships can prevent children from being involved with negative symptoms such as being caught up with drug abuse problems and HIV risk behaviors. On the other hand, a widespread relationship between family members will lead to family conflicts and consequently resulted in an individual in a high-risk family to engage in drug abuse activities, which will eventually lead to HIV risks [27]. Other than that, there are also some studies that found the lack of communication and the application of ineffective communication methods among family members as factors that lead to the occurrence of social problems, such as family involvement with drug abuse activities [28]. of the PLHIV demography, their knowledge on HIV, the observation and relations between the factors or causes of what makes them contracted the disease, and the acceptance of these PLHIV within their local community. There were five sections of questions that were asked to the PLHIV respondents. The first section of the questionnaire was the basic questions on the demographic information of the respondents. The following section was on their knowledge level about HIV, the third section was about the ways of transmission of HIV for the individual respondent. In this part of the question, it was asked in a more detailed way on how the HIV disease was transmitted, whether it was through sexual intercourse, drug use by sharing of needles, blood transfusion, a medical accident which is through the needle prick of the syringe of HIV patients, or through the vertical transmission which is the passing down of HIV from an infected mother to their child during their pregnancy, birth or breastfeeding. The fourth section would be the contributing factors of HIV infection and in this part of the question, the researchers try to determine

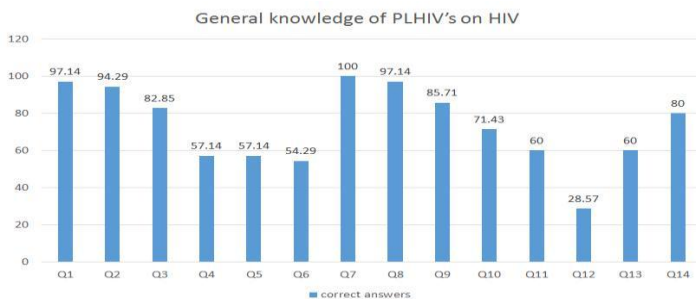
what causes them to get involved with HIV risk behavior, why and how did they get infected with HIV through these ways of transmissions. The last section of the questionnaire was the acceptance of the PLHIV by those around them, whether they have been stigmatized by others or self-stigmatized. From this part of the research, the researcher could determine whether the PLHIV get moral support, such as emotional, motivational, health, and other supports that would build them up to feel normal again. The stigma towards PLHIV today is a major problem and it is very important to combat this mindset. The set of questions in the questionnaire was in the form of multiple choices using a Likert-scale answer format. In order to conduct the

quantitative analysis, the researchers used the SPSS (Statistics Package for the Social Sciences), and Microsoft Excel to key in the raw data from the survey questions.

**FINDINGS**

This section presents the analyses of data for the three research objectives. The first objective is to investigate the general knowledge about HIV among the PLHIV in Kuching. Secondly, it is to find out the ways of HIV acquisition among the PLHIV in Kuching, and the third objective is to determine the underlying factors which contribute to the infection.

i) *To investigate the general knowledge of HIV among the PLHIV in Kuching.*

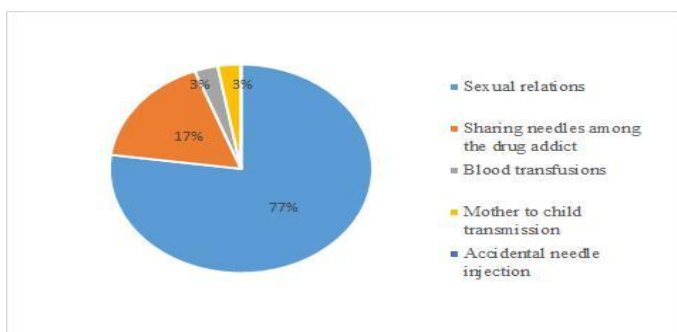


**Figure 1 General Knowledge of PLHIV's on HIV**

Figure 1 above depicts the general knowledge of HIV that the PLHIV possesses. In order to test the knowledge of the respondents, there were 14 polar questions arranged for them to answer. From the graph, investigators found that majority of the respondents have basic knowledge. This is because, for every question except for question number 12, more than half of the sample size had answered correctly, which proved that they have the basic knowledge about HIV. For the first question, most of the

respondents which is about 97.14% (34 out of 35 people) answered correctly. Query number 7 was 100% answerable and this shows that all the 35 patients were aware of that question. The question with the least number of respondents getting it correct was question number 12. The percentage of positive responses to this question is 28.57% (10 out of 35 people).

ii) *To find out the ways of HIV acquisition among the PLHIV in Kuching.*



**Figure 2 Mode of HIV Transmission**

Figure 2 shows the result for the mode of HIV transmission showed that most of our respondents contracted HIV infection through sexual relationships which total 77% (27 respondents), whether it was from a single sexual partner or multiple sexual partners. The second highest answer recorded was transmission by needle-sharing among drug addicts, with a percentage of 17%, which is equivalent to 11 respondents. Mother to child transmission and blood

transfusion mode was reported by one respondent only with the percentage of 3%. Meanwhile, no response was recorded for the accidental needle prick by medical staff. "HIV infection is best characterized as a sexually transmitted disease (STD). In the United States, 75% of the HIV-infected individuals acquired the virus through sexual activity [38]. This confirms that the highest transmission of HIV was through sexual relations with their partners.

To determine the underlying factors which contribute to the infection.

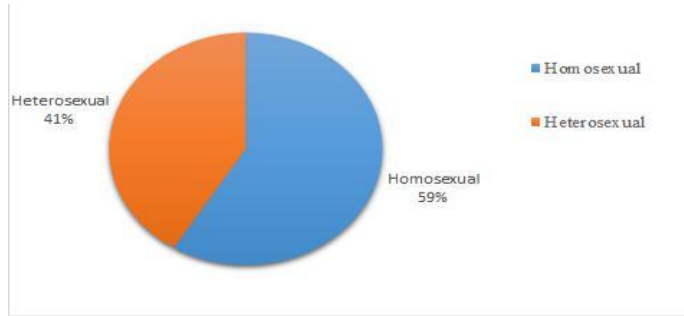


Figure 3 The respondents' (PLHIV) sexual orientation

Figure 3 above shows the sexual orientation of the respondents. The highest type of sexual orientation is homosexuality as reported by 10 out of 17 respondents who answered this question, which is 58.8%. Meanwhile, the other 7 respondents had chosen heterosexuality as their

sexual orientation, with a percentage of 41%. This proves that most of our respondents are homosexuals (the same sex) compared to heterosexuals (different sex).

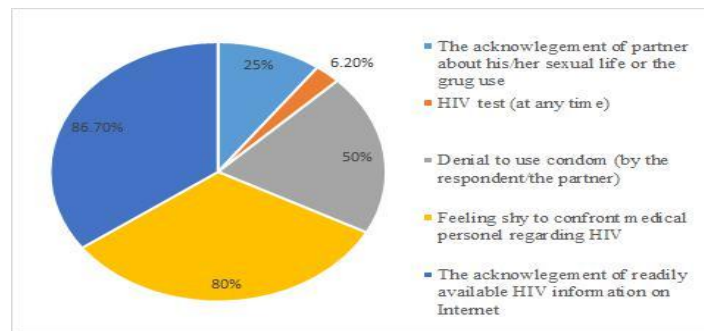


Figure 4 The underlying factors for the respondents with a single sexual partner.

Figure 4 shows the factors of how the respondents who have a single sexual partner became engaged with HIV. The highest percentage of 34.97% would be the acknowledgment of readily available HIV information on the internet. Although most of them know about the consequences of HIV spreading among them, they are not taking this as an important aspect due to their loyalty towards their partners. They depend more on trust and their conviction to their partners is much more crucial than the need to know their partners' health status, as to whether they have HIV or not. The second most answered question with a percentage of 32.27% is the presence of shyness in confronting the medical personnel regarding their HIV status, although they have the symptoms of HIV. They also might not know about the health status of their partners, whether their partners have HIV or not. If both partners have tested on HIV, precautionary steps may be taken to avoid being infected and spreading the infection to others. Taking an example of a housewife whose only sexual partner is her husband. The source of HIV infection comes mostly from their husbands. If the husband had told the wife on his HIV status or both go for HIV testing, the transmission of HIV could possibly be avoided. The third is the denial of condom use during intercourse with a percentage of 20.17%. People with a single sexual partner usually put their absolute trust on their partners, and most

of them prefer to not use condoms. They might have known their partners for life and truly believe in them in reassuring that they are practicing safe sex; although there is a chance of possible HIV infection. This factor is also leading to the acknowledgment of their partners' sexual life in the past, which have the percentage of 10.08% answering Yes, reporting that they did not know much about their partners' sexual life or their partner did not share the information with them. The least is the health testing of HIV with a percentage of 2.50%, as they usually believe that they are healthy and are not exposed to any diseases especially HIV. Figure 5 below shows the factors for the respondents who have multiple sexual partners engaging with HIV. The highest answer that the respondents had chosen for the factors causing them to contract HIV was the respondents' acknowledgment of readily available HIV information with a percentage of 18.29%. Although most of them know about the consequences of contacting HIV during sex is very high, they might act or have the intention of risking their health by ignoring the safety of having unprotected intercourse such as not wearing condoms. Following up the second highest is the people's perception aspect which is the feeling of shyness to confront the medical personnel regarding his or her HIV infection with a total of 17.84% answering, Yes.

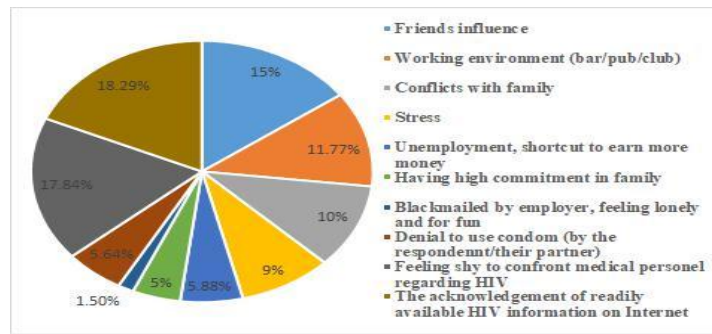


Figure 5 ; The underlying factors for respondents with multiple sexual partners

They do not dare or be willing to confront the medical personnel as they are afraid of the stigma towards HIV patients. Also, in some cases, they feel worried to be looked down upon because of their physical appearances as some might be transsexuals. At the third is the friends' influences factor with 14.98%, followed by the working environment factor that contributed to 11.77%, and some do have conflicts with their family that add on 10.43% of influences in their involvement in having multiple sexual partners. The stress factor contributed to 8.83%, and this might be due to the many factors which are inter-connected and influenced them to be exposed to these activities. Other minor factors such as unemployment with 5.88%, having a high commitment towards their families with 4.55%, and blackmailed by the employer with 1.50%, are the three least chosen factors of these respondents with multiple sexual partners. The respondents who had chosen denial in using condoms with a percentage of 5.64% are included as the least chosen factor. It is assumed that not all their partners prefer them to not wear a condom, as they know they have multiple sexual partners.

The data reveals the who or what could have caused a person to be involved with drugs. Only 29 respondents answered this question. From the graph, the highest number with 8 respondents had chosen peer influence at 23.97%. Second, the highest response is the conflict in the family with 19.96% (6 respondents). Five of the respondents chose the addiction to oral drugs before using iv drugs as the third-highest factor for getting involved with the drug (16.06%). The other factors are unemployment (11.98%), working environment (7.98%), a shortcut to earn fast money by distributing drugs (6.06%), and own family's involvement in drugs (4%). According to researchers [29], they generally believed that peer influence is the major cause for drug-related behaviors. This shows that the highest factors for HIV transmission by drug use is through peer influence.

The researchers also collected data for the question about the history of physical, emotional or/and sexual abuse, and the result shows that four respondents or 67%, answered the questions with a Yes. Two respondents or 33%, answered No, which means that they have never been physically, emotionally, and sexually abused. From this graph, it shows that the number of respondents who had been abused is more than those who have never been abused. Thus, this action led the respondents to try and engage with the drugs. (Sexual or physical abuse of children are discussed as possible causes or risk factors for psychiatric disorders like posttraumatic stress disorder, alcohol, and drug addiction) [31]. This shows that being

abused physically, emotionally, and sexually can be contributing factors to the individuals' engagement with drugs.

## DISCUSSION

Stigma and discrimination have fueled the transmission of HIV and have increased the negative impact. Stigmatization associated with AIDS is underpinned by many factors, including lack of understanding of the illness, misconceptions about how HIV is transmitted, lack of access to treatment, the incurability of AIDS, and prejudice and fears relating to a number of socially sensitive issues including sexuality, disease and death, and drug use [31]. HIV-related stigma and discrimination continue to be manifested and creating major barriers to preventing further infection, alleviating impact, and providing adequate care, support, and treatment [32]. Stigma also can lead to discrimination and other violations of human rights which affect the well-being of people living with HIV in fundamental ways. What is worse for them is in countries all over the world, most of the documented cases of people living with HIV were being denied the right to healthcare, work, education, and freedom of movement, among others [33].

From the findings of the demography of the respondents, a majority who have responded is male with the highest percentage of 55.9%. This shows that male respondents are more open-minded in sharing about their HIV status. Male is also one of the biggest contributors to HIV rate as males are more actively involved in sexual activities. Other than that, most of the respondents are single with the highest percentage at 51.4%, and the lowest one at 5.7% with a married status. This indicates that the single one tends to look for a partner who is willing to have sex with them to fulfill their loneliness or emptiness inside them, and they are also looking for partners to release their stress because according to a family doctor having sex can function as a stress reliever. Sexual activities give you a break from the stresses of a person's life. The highest percentage for age of the respondents was at 32.4%, for ages around 26-30 years old, and the lowest percentage at 2.9% is the age range of 46 years old and above. This is because people around the age of 26-30 years old are generally healthier compared to the age of 46 years old and above because they are unable to perform or be sexually active with, they own partners, for both males and females. Most of the respondents have achieved their highest education at the university level, at the highest percentage of 42.9%. This indicates that most of the respondents have better knowledge about HIV compared to other respondents who have not received any

formal education, with the lowest percentage of 2.9%. Other than that, the majority of the respondents, with the highest percentage of 60%, have full-time jobs. A majority of respondents who have responded to this study with the highest percentage of 51.4%, has been diagnosed as an HIV patient for 6 months and above, and the lowest percentage at 14.3% have been diagnosed between 1-3 months.

The researchers examined the general knowledge of transmission of HIV infection from the data collected. Most of the respondents possessed general knowledge about HIV status. Respondents demonstrated awareness of the routes of transmission of HIV. A possible explanation was their more permissive attitudes towards sex which may lead them to find out more about sexual and reproductive health. The misconceptions about transmission such as the belief that infection could be transmitted through mosquito bites, sex with an uninfected partner, non-usage of condom, and sharing a meal with an infected person were observed among a small proportion of the respondents. Casual skin contact is generally dismissed as a means of transmission by a minority of the respondents. Nonetheless, finding shows that most of the respondents have better knowledge about HIV. This finding may indicate the group of respondents who have obtained education to the levels of successfully finishing their high school or a bachelor's degree. Similar misconceptions were reported by [34], that HIV could be transmitted through a handshake, sharing a meal with HIV infected-patients, and so on. This is because some of the respondents do not really know about the fact that HIV could only be infected through blood and not through the air. They may have thought that HIV is just the same as other viruses that could be infected through air or water. This shows that these respondents do not really understand the idea of HIV and AIDS.

HIV can be transmitted through unprotected sex, sharing needle-drug, mother-infant, and through blood transfusion. In addition, this study found that a majority of the PLHIV are those who are sexually active with opposite-sex partners (heterosexual). These findings are consistent with prior research by researchers [35], which found that unprotected sex was primarily observed among respondents with negative attitudes regarding the pleasure and negotiation in the use of condoms or other protection, and suggested that heterosexual people living with HIV should focus on using condoms to minimize the transmission of HIV. The highest number of respondents have chosen unprotected sex as a factor in HIV transmission. The findings demonstrated that most of the respondents contracted HIV infection through sexual relations at 77% (27 respondents), whether it was from a single sexual partner or multiple sexual partners. Unprotected sex is the most common route of transmission from their infected partner. It accounts for nearly 80-90 percent of the world's HIV infections. Like a virus, which lives in the blood, the second-highest response was transmission by sharing needles among drug addicts with a percentage of 17% which equals 11 respondents. It can be transmitted using needles, syringes, blades, knives, surgical instruments, and other piercing instruments that have been used on an infected person, without proper sterilization. This can also be transmitted through instruments used for circumcision, tattooing, ear piercing, acupuncture, and traditional healing

practices. The sharing of needles and syringes among injecting drug users is common. HIV also can be transmitted from a woman with HIV to her child before, during, and after birth. Mother to child transmission and blood transfusion was reported by one respondent with a percentage of 3%. Most of the children with HIV do not survive for longer than 2-5 years if they do not receive any treatment.

The findings on the respondents that are having a single sexual partner engaging with the HIV, shows that the highest status with a percentage of 34.97% would be the acknowledgment of readily available HIV information on the internet. Although they know about the consequences of HIV spreading among them, they are not taking this as an important aspect due to their trust towards their partners. The loyalty and belief in their partners are considered more important rather than the need to know their partners' health status. This is because of the discrimination where there is an unfair treatment of an individual based on his/her perceived HIV status. Certain health care providers show negative attitudes and behavior towards the PLHIV which eventually makes the PLHIV fearful about getting treatment and HIV testing. Other than that, some people are sexually active with a single partner because they do not have enough time to look for other partners due to their busy working schedules.

Most of the respondents said that peer influence was one of the factors for their involvement in risky HIV behaviors. According to researchers [36], many vices such as smoking, drinking, becoming drug addicts, and having risky sexual behaviors, are cultivated when a person blindly followed their peers by putting aside their own will. This mostly happened to young adults who put more trust towards their friends than their own family. The respondents who responded to getting HIV through drugs have recorded the early history of taking drugs since they were in middle or higher school.

The highest number with 8 respondents or 23.97% who are drug addicts, said that they have a drinking habit and were addicted to oral drugs before switching to IV drug usage. These are the potential kick-start activities for them to be immersed in IV drug usage which eventually makes them vulnerable to fall under risky behaviors to get transmitted with HIV. It was found that most of our respondents used to have problems with family members and that caused them to get involved in risky behaviors too. Findings demonstrated that the second-highest answer that the respondent chose was the conflict in the family with 19.96%. According to the researcher [37], who also proposed a theory of risk and protective factors, he included relationships for initiating alcohol and other drug use during the critical developmental stages of adolescence and young adulthood. This theory highlighted factors such as low parental bonding and a lack of closeness in parent-child relationships as part of an index of risk factors for substance use and problematic behaviors.

Most of the subjects said that they have a history of abuse which makes them vulnerable towards risky behaviors. The experience of physical and sexual abuse can lead to a variety of adverse health outcomes including an increased risk for HIV [38]. Those exposed to abuse may be more prone to engage in risky sexual contact or drug use, which are the primary routes for HIV transmission in the United States [39].

## CONCLUSION

The research on PLHIV in Kuching shows that the respondents came from various demographic backgrounds and have encountered different factors in acquiring the HIV infection. They also have different levels of knowledge towards HIV and are not that keen and open to tell other people about their health status, such as having HIV. The Sarawak AIDS Concern Society (SACS), is one of the agencies that moves out and gives a big help to these PLHIV in Kuching. They are also involved and promote awareness about HIV and discuss action plans in preventing the disease from spreading. The stigmatization of PLHIV in Kuching has widely affected them emotionally as many of them are being treated unequally by other members of society. These might be due to their appearance that are different from other people, that they might be transsexuals, because of the type of work they do, or people just do not want to be involved or associated with them as they carry a disease that is incurable. Instead of avoiding them, we should always remind ourselves that these PLHIV also want to live a normal and healthy life without having to carry this burden for life. It is not necessarily their choice to have HIV infection, because not all are aware that they are carrying the disease. HIV comes with a human, but the human is not aware of the existence of the disease. Acceptance is one of the steps in preventing HIV from spreading further because by accepting, the stigmatization towards PLHIV would be lessened. This will encourage those PLHIV to go out and do their HIV check-up regularly and to be back on track on their daily life routines.

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