

Describing the Risky Sexual Behavior of Unmarried Filipino Seafarers Residing in Ozamiz City and their Knowledge and Attitudes on HIV

**Henrick G. Irog-irog¹, Arnold B. Cabrera¹,
Marie Rosellynn C. Enguito²**

¹College of Maritime Education, Misamis University,
H. T. Feliciano St., Ozamiz City, Philippines

²Natural Science Department, College of Arts and Sciences, Misamis University,
H. T. Feliciano St., Ozamiz City, Philippines

Corresponding author: Henrick Irog-irog, email: henrock592@gmail.com

Abstract

Seafarers have been identified as a group at risk for HIV infection. There are no studies conducted yet that assess the seafarers residing in Ozamiz City regarding their sexual behaviors while abroad, their knowledge and attitudes on HIV that might put them at risk of HIV infection. With the increasing rate of HIV infection globally, it is timely and relevant to look into these concerns. Hence, this study aimed to describe the risky sexual behaviors of unmarried Filipino seafarers residing in the city and their knowledge and attitudes on HIV. The study is descriptive in design and the method employed was survey with questionnaire as the main tool used to gather the information aided with interview. Findings revealed that there are considerable number of unmarried seafarers in Ozamiz City that performed risky sexual behaviors while abroad with multiple sex partners. Misconceptions about HIV transmission and infection persist among the seafarers that could put them at risk of HIV infection. Majority of the seafarers possess positive attitude expressed in their acceptance for people living with HIV. The negative attitudes that persist among the seafarers include inconsistent use of condom with single or multiple sex partners. Findings of this study may fill the knowledge gap on the subject matter for necessary interventions.

Keywords: abroad, condom, health, institutions, misconceptions

Introduction

Risky sexual behaviors, inadequate knowledge, and negative attitudes are major hindrances to preventing the spread of HIV (Thanavanh et al., 2013). The first case of the HIV infection was detected in 1959 in the Democratic Republic of Congo (Vangroenweghe, 2001). Today, HIV is a global disease and approximately 33 million people worldwide suffer from this disease. The number of people living with HIV has increased by 27% over the past ten years. Approximately 5 to 10 million people are living with HIV in Asia [Joint United Nations Programme on HIV/AIDS (UNAIDS), 2002]. Southeast Asia is experiencing numerous and diverse HIV epidemics that are evolving at varying rates, in different population groups, and in different geographical areas (Farr & Wilson, 2010). An increase also occurred because of the reduction in AIDS-related deaths due to the access to antiretroviral therapy (UNAIDS, 2010).

Prevention is of great importance to combat the spread of HIV/AIDS globally, where multilayered social, political, and economic efforts are needed to reduce the risk and vulnerability. The biggest goal of prevention is to change the individual's risk behavior. For the past 30 years, HIV prevention has been dominated by behavioral interventions that seek to influence attitudes, knowledge, and behaviors. Sexual-health education, promotion of condom use, and education about injective drug use are among these interventions (Gupta et al., 2008). For over the past 15 years, there has been a sharp increase in funding from the World Health Organization (WHO), United Nations, the World Health Bank and other organizations to fight HIV in developing countries worldwide (WHO, 2011). Resources have primarily been used on prevention, treatment, and care. In several developing countries, HIV testing has no cost (Parekh et al., 2010). In many countries in Southeast Asia, well-organized prevention, care and treatment interventions that involve all sectors of society have a positive effect on HIV epidemic (WHO, 2011).

In the Philippines, there was a three-fold increase in the rate of HIV diagnoses between 2003 and 2008, and this has continued over the past years (Farr & Wilson, 2010). The HIV diagnoses rates have noticeably increased among men, particularly among bisexual and homosexual men during this period. The average age of diagnosis has also significantly decreased from older to younger (from approximately 36 to 29 years). In 2004, Mateo et al. reported that HIV/AIDS has not yet caused a widespread epidemic in the Philippines as the rates in all the usual risk groups (sex workers, men who have sex with men, clients with sexually-transmitted diseases, seafarers, returning overseas workers, etc.) were shown to have remained below 1%. Morisky et al. (2009) reported that the country is experiencing a low but slowly growing prevalence of HIV. However, there are numerous factors suggesting that HIV is increasing and ready to emerge at high rates in the country (Farr & Wilson, 2010). These factors include the lowest documented rates of condom use in Asia, increasing casual sexual activity, returning overseas Filipino workers from high-prevalence settings, high needle-sharing rates among injecting drug users, and widespread misconceptions about HIV/AIDS.

In Northern Mindanao, 102 cases of AIDS were reported from 1991 until 2013 with Cagayan de Oro registering the most cases. The province of Bukidnon has seven AIDS cases, Camiguin has two, and Misamis Oriental and Cagayan de Oro have 60. Lanao del Norte including Iligan City has 19 cases. Misamis Occidental including Ozamiz City has 14 cases (Malalis, 2013). The situation in Ozamiz City regarding HIV cases may be attributed to the increasing number of overseas Filipino workers coming from this part of Mindanao. In particular, it has been known that the city has been supplying seafarers to the maritime industry with the presence of tertiary institutions offering maritime education.

Seafarers have been identified as a group at risk for HIV infection (Ford & Chamrathirong, 2008). Other than this research, there have been no other studies about seafarers in Ozamiz City to probe their sexual behaviors and their risk of acquiring HIV. With the increasing rate of HIV infection globally, it is timely and relevant to look into the risky sexual behaviors of unmarried Filipino seafarers residing in the city, and their knowledge and attitudes on HIV. This study specifically determined the demographic profile of the unmarried seafarers, their risky sexual behaviors, knowledge on HIV transmission and infection, as well as their attitudes on HIV. Findings of this study may fill the knowledge gap on the subject matter for necessary interventions by the City Health Office, academic institutions, non-government organizations, and other stakeholders in the city to address the information needs of the people on HIV.

Materials and Methods

The study used the descriptive research design through a survey method with questionnaire as the main tool to gather the information aided with interview. The study was conducted in Ozamiz City from January to February of 2015. The respondents were 30 seafarers selected from the target group using the simple random sampling method. Male and unmarried Filipino seafarers residing in Ozamiz City and who were onboard internationally or inter-islands composed the target group. The sample size was determined using the Sloven's formula (Olatunde & Joshua, 2012) with 95% level of confidence.

The questionnaire was developed from the study of Nubed and Akoachere (2016) with modifications. The questionnaire has three parts. The first part is the demographic profile of the seafarers. The second part consists of items about the risky sexual behaviors of the respondents. The third part is composed of statements and questions that assessed the knowledge and attitudes of the respondents. Respondents were to choose yes or no for their answer. The questionnaire was tried first to 10 respondents before subjecting the questionnaire to Cronbach's alpha test which generated a value of 0.857 indicating a good internal consistency

of the items. Before the respondents were given the questionnaire, they were assured that all information given would be treated with full confidentiality and anonymity of their identification. The respondents were informed of their right to refuse participation. All target respondents participated voluntarily. Frequency and percentage were the descriptive statistics used.

Results and Discussion

The demographic profile of the respondents is shown in Table 1. More than half of the respondents aged 20-24 years old, and mostly having international seafaring experience. Half of the respondents have been working for about three years; some have been navigating for 4-6 years. Almost all respondents are sexually active and mostly prefer Asian sexual counterparts. This finding could be attributed to the fact that most of the participants are within the sexually active age group with stereotypical preference of commercial sex workers of different nationalities. Majority had sexual relationships for the past year, 60% with one regular partner but 30% of the seafarers were engaged with multiple sex partners. Only 50% of the respondents had HIV test, 47% had no idea where the test centers are, and 60% expressed the desire for HIV test. Others who felt at risk of HIV infection were scared to submit themselves for the test.

Saniel and De los Reyes (2010) found out that younger seafarers are two times more likely to have multiple sexual partners than their older counterparts. They also reported that the odds of having multiple sex partners is slightly more than two times among unmarried seafarers compared to married seafarers. Young adults, men who have same sex relationship, commercial sex workers, injecting drug users, overseas Filipino workers, and the sexual partners of people in these groups are particularly vulnerable to HIV infection (Farr & Wilson, 2010).

Table 1. Demographic profile of unmarried Filipino seafarers residing in Ozamiz City.

Demographic Characteristics	Frequency N=30	Percentage (%)
Age Group		
15-19	0	0.00
20-24	14	47.0
25-29	6	20.0
30-34	4	13.0
35-39	0	0.00
40-45	2	6.70
46-50	1	3.30
50 up	3	10.0
Route		
International	25	83.0
Inter-Island	5	17.0
Total number of years working on board:		
Less than 1 year	5	17.0
1-3 years	15	50.0
4-6 years	10	33.0
Active sex life		
Yes	29	97.0
No	1	3.00
Had sexual relations for the past year	27	90.0
Single regular sex partner	18	60.0
Multiple sex partners	9	30.0
Nationality of sexual partners:		
Asian	23	77.0
European	4	13.0
Australian	3	10.0
North American	2	6.70
South American	1	3.30
African	2	6.70
With record of HIV test	15	50.0
With knowledge on HIV test centers	14	47.0
Desired to have an HIV test	19	63.0
Felt at risk of HIV/AIDS infection	10	33.0

Filipino seafarers specifically those with active sex life abroad are encouraged by Congressman Arnel Ty to voluntarily undergo test for HIV every time they come home. The test is necessary to also ensure the safety of their partners at home (Diaz, 2012). Seamen are only tested once, shortly before they are initially recruited by the employer.

Risky sexual behaviors of unmarried seafarers

Table 2 shows the risky sexual behavior of unmarried Filipino seafarers residing in Ozamiz City. These risky behaviors had been performed with one or more partners. Conditions in seafaring may result in high-risk sexual behavior. There were few seafarers who displayed promiscuous behavior by having more than one sex partner at one time. Twenty out of 30 (66.7%) seafarers admitted having oral sex with their partners, 46.7% had performed it with only one partner but the rest with multiple partners. In one study, a higher percentage (90%) of men aged 25–44 had oral sex with an opposite-sex partner (Chandra et al., 2013). In this current study, there is no admission of men having sex with men (MSM). Although the risk of HIV transmission by oral sex is small, it is well established that oral-genital and oral-anal sex is a risk to the transmission of a wide variety of sexually transmitted diseases (STDs) (Edwards & Carne, 1998a; Edwards & Carne, 1998b; Hawkins, 2001; Sescon, 2015). Some men who were engaged in oral sex thought that they were practicing safe sex and were surprised to find out they already have the STD (CDC, 2004). Because the risk of HIV transmission through oral sex is much lower than during anal or vaginal sex, persons might wrongly consider that unprotected oral sex is safe or a no-risk sexual practice (Varghese et al., 2002).

Only a small percentage of the respondents acknowledged having not experienced the “one-night stand” sex but the rest admitted doing this risky behavior more with one partner only or with multiple partners for few respondents. Unprotected sex was experienced by majority of the seafarers in this study, more with one partner and very few with multiple partners, while 36.7% of the respondents had not engaged in this risky behavior. Majority of the seafarers also admitted engaging in sex while intoxicated with alcohol, more of them with one

partner but few also were doing it with multiple sex partners. Only five of the 30 respondents admitted having sex while intoxicated with prohibited drug, two of these seafarers engaged on it with four sex partners.

Table 2. Risky sexual behaviors of unmarried Filipino seafarers residing in Ozamiz City.

	0 Never F (%)	1 Partner F (%)	2 Partners F (%)	3 Partners F (%)	4 Partners F (%)	5 and more F (%)
Oral sex	10 (33.3)	14 (46.7)	1 (3.3)	4 (13.3)	1 (3.3)	0 -
“One-night stand” sex	8 (26.7)	14 (46.7)	4 (13.3)	0 -	3	1 (3.3)
Unprotected sex	11 (36.7)	13 (43.3)	2 (6.7)	2 (6.7)	1 (3.3)	1 (3.3)
Sex while intoxicated with alcohol	8 (26.7)	13 (43.3)	2 (6.7)	4 (13.3)	1 (3.3)	2 (6.7)
Sex while intoxicated with prohibited drug	20 (66.7)	3	0	0	2	0

F – Frequency

The UNAIDS (2008) proposed for use two terms, “risk” and “vulnerability”, that were related to contracting HIV infection. “Risk” is the probability that an individual may acquire HIV infection. These are behaviors that set up, augment, and perpetuate risk of infection, such as unprotected sexual contact with a partner whose HIV status is unknown especially for the “one-night stand” contact, multiple unprotected sexual partnerships, and injecting drug use with contaminated needles and syringes. “Vulnerability” comes from a variety of factors that decrease the ability of a person to avoid HIV infection. Seafarers are among the populations that are at risk or vulnerable (Bronfman et al., 2002). Seafarers who are young and unmarried with a history of alcohol

drinking are more likely to report multiple sex partnerships compared to married and older men who do not drink alcohol, respectively (Saniel & De los Reyes, 2010). The conditions encountered during seafaring may increase vulnerability and risk to HIV (Tomaszun, 1994). The shipping life could be boredom for unmarried Filipino seafarers which may lead them to seek pleasure with women or prostitutes they encounter in port cities which may result in high-risk sexual behaviors (Saniel & De los Reyes, 2010; Jacobs, 2013)

Seafarers' knowledge on HIV

HIV Transmission. Table 3 presents the knowledge of Filipino seafarers regarding modes of HIV transmission. Overall results indicate that majority of the seafarers (61.4%) showed adequate knowledge on the modes of HIV transmission while 28.2% of the respondents had wrong notions about how HIV are transmitted. There were also respondents (10.4%) who did not indicate their answer on the questionnaire. Majority of seafarers are aware that HIV is transmitted via infected surgical needles, blood transfusion, and having unprotected sexual intercourse, but many of them have a wrong notion that HIV can be passed on by kissing (47%), and eating and drinking (34%) from the plates or glass of someone infected with HIV. Other common misconceptions found in this study include hugging or shaking hands (27%) with an infected person can transmit HIV. Misconceptions about transmission of HIV observed among a greater percentage of male students (Thanavanh et al., 2013) compared to the result of this study. The study of Farr & Wilson (2010) showed that widespread misconceptions about HIV/AIDS would be one of the factors to consider why HIV epidemic is ready to emerge in the Philippines.

Table 3. Knowledge on HIV transmission of unmarried Filipino seafarers residing in Ozamiz City.

Statements	Correct answer F (%)	Incorrect answer F (%)	Without answer F (%)
Having sexual intercourse without condom can transmit HIV. (Correct answer: Yes)	22 (73)	7 (24)	1 (3)
Blood transfusion can transmit HIV. (Correct answer: Yes)	22 (73)	5 (17)	3 (10)
Engaging in oral sex can transmit HIV. (Correct answer: Yes)	15 (50)	11 (37)	4 (13)
Using needles containing infected blood can transmit HIV (Correct answer: Yes)	23 (77)	4 (13)	3 (10)
A mother infected with HIV/AIDS to an unborn child can transmit HIV. (Correct answer: Yes)	16 (53)	8 (27)	6 (20)
Hugging or shaking hands with an infected person can transmit HIV. (Correct answer: No)	18 (60)	8 (27)	4 (13)
Eating and drinking from the same plate or glass of and HIV-positive person can transmit HIV. (Correct answer: No)	16 (53)	10 (34)	4 (13)
Having sexual intercourse with condom can transmit HIV. (Correct answer: No)	20 (67)	8 (27)	2 (6)
Kissing someone infected with HIV can transmit HIV. (Correct answer: No)	14 (47)	14 (47)	2 (6)
Overall %	61.4%	28.2%	10.4%

F – Frequency

Another wrong notion of 37% of the respondents is that engaging in oral sex cannot transmit HIV. This virus can be transmitted during any of oral sex but the risk is much less than that from anal and vaginal sex (Sescon, 2015). Successful entry of the virus, the “high” viral concentration at the time of oral sex, and the presence of mucosal breaks such as gingivitis, dental caries, sores, and the likes are the factors for HIV transmission via oral sex. Men who have sex with men and are engaged in unprotected oral sex have increased rates of HIV infection (Mayer, 2011).

What is also noted in the result of this study is that 24-27% of the seafarers had wrong notion about condom in HIV transmission. There were seafarers who answered that HIV cannot be transmitted during sexual intercourse even without condom, others also answered that having sexual intercourse with condom can transmit HIV. Carey and Schroder (2002) in their study confirmed that myths about casual transmission (e.g., by insect bite, hugging, or kissing) and incorrect ideas regarding prevention (e.g., using birth control pills or douching) remained prevalent. These notions still persist despite the advisory of the Centers for Disease Control and Prevention (2014) that one cannot get HIV from hugging or holding hands or casual contact or become infected from a toilet seat, a drinking fountain, a door knob, dishes, drinking glasses, food, cigarettes, pets, or insects, or is can be spread through the air as it does not live long outside the body. It has also been emphasized that HIV is not spread by day-to-day contact in the workplace, schools, or social settings.

HIV Infection. Table 4 shows the knowledge of the seafarers on HIV infection. All respondents have heard about HIV/AIDS but not all are completely knowledgeable about the infection. Majority of the respondents agreed that a healthy-looking individual may have the infection. Most seafarers know that HIV is a virus but most of them also think that HIV is a bacterium. Nordqvist (2010) explained that HIV is a virus that over time infects and kills white blood cells called CD4 or T cells leaving the body unable to fight off certain kinds of infections and cancers. The result implies that the seafarers have knowledge gap on HIV classification. It is important that seafarers be made aware of how

the HIV destroys the human immune system (Kaminsky & Zhivotovsky, 2010) so they could become more cautious not to get the infection. The study of Durojaiye (2011) in Nigeria showed that the failure to perceive HIV/AIDS as a personal risk has prevented commitment to behavior change among young people.

Table 4. Knowledge on HIV infection of unmarried Filipino seafarers residing in Ozamiz City.

Questions	Yes F (%)	No F (%)	Without answer F (%)
Have you ever heard of HIV/AIDS?	30 (100)	0	0
Can a healthy-looking person have HIV? (Correct answer: Yes)	19 (63)	9 (30)	2 (7)
Is HIV a virus? (Correct answer: Yes)	29 (97)	1 (3)	0 (0)
Is HIV a bacterium? (Correct answer: No)	2 (7)	26 (86)	2 (7)
Can HIV be cured? (Correct answer: No)	5 (17)	22 (73)	3 (10)

F – Frequency

Seafarers’ attitudes on HIV

The seafarers’ attitudes on HIV is shown in Table 5. Majority of the respondents did not know anyone infected with HIV but a consideration number had admitted knowing somebody. However, the seafarers exhibited positive attitudes on establishing friendships with people living with HIV (PLWH) without any physical contact. Majority of the respondents did not express avoiding the PLWH. This positive attitude of the seafarers to PLWH may help these individuals find a support system that can listen to their predicament. The barrier for HIV-infected individuals to disclosing is often the fear of how others might react (Audet et al., 2013). HIV-related discrimination and stigma impact negatively on the quality of life of PLWH (Herrmann et al., 2013; Fuster-Ruizdeapodaca et al., 2014). It has been widely recognized

that community-based support is vital for the quality of life of PLWH (Yadav, 2010). In a study in China, PLWH had a relatively higher level of quality of life and one of the probable explanations was a stronger social system (Wu et al., 2015). Hence, perceived stigma and social support are correlated with the quality of life in PLWH. Interventions designed to decrease perceived stigma and strengthen social support from family are necessary to improve the quality of life in PLWH.

Table 5. Attitudes on HIV of unmarried Filipino seafarers residing in Ozamiz City.

	Yes F (%)	No F (%)	Without answer F (%)
Do you know anyone infected with HIV?	10 (33.0)	16 (53.0)	4 (13)
Would you establish friendship with people living with HIV but avoid physical contact?	21 (70.0)	7 (23.0)	2 (7.0)
Would you avoid people living with HIV?	9 (30.0)	19 (63.0)	2 (7.0)
Do you always use condom during sexual intercourse?	22 (73.0)	8 (27.0)	0 (0.0)
Did you use a condom the last time you had sex?	18 (60.0)	12 (40.0)	0 (0.0)
Would you use condoms if you could get them for free?	19 (63.0)	10 (33.0)	1 (3.0)
Will a condom protect one from pregnancy and from HIV?	16 (53.0)	8 (27.0)	6 (20.0)
Will a condom protect one from pregnancy but not from HIV infection?	10 (33.0)	13 (43.0)	7 (23.0)
Will a condom spoil sexual pleasure?	17 (57.0)	10 (33.0)	3 (10.0)
Can the risk of HIV infection be reduced by having sex with one faithful partner?	19 (63.0)	8 (27.0)	3 (10.0)

F – Frequency

Many seafarers in this study admitted always using condoms when in contact with their sex partners and were fully aware of condom use to prevent the HIV infection but 27-40% of the respondents did not use condom regularly. Condom use remains an important mechanism for preventing the spread of HIV (Lucea et al., 2013). Inconsistent condom

use can put an individual of great risk being infected with HIV (Rwenge, 2000; Meekers et al., 2003). HIV transmissions from lower condom use was also reported by Sullivan et al. (2009). The lowest documented rates of condom use in Asia has been considered as one factor for increasing rates of HIV (Farr & Wilson, 2010). Sixty percent only of the respondents indicated using condom during their last sexual encounter. Condom use at last sex is a positive sign but it does not mean that the young people reporting condom use have not placed themselves at risk of acquiring HIV infection at any time in the preceding months (Nubed & Akoachere, 2016).

Majority of the respondents in this study acknowledged to use condom if they could get it for free. The DOH in the Philippines began handing out free condoms on 14 February 2010 against HIV/AIDS despite a protest by Catholic bishops (Digal, 2010). Although the government provides free condoms at public social hygiene clinics (SHCs), which provide no-cost contraceptive supplies and family planning services, many Filipinos will not visit SHCs because they carry a social stigma related to their activities for commercial sex workers (Human Rights Watch, 2016). The Roman Catholic Church has strongly opposed use of condoms to prevent spread of sexually transmitted infections (STI) because of their contraceptive effect (Benagiano et al., 2011). For years, not even the advent of the HIV/AIDS pandemic changed the Philippine Catholic Church's opposition to the use of condoms. Church leaders are supporting the campaign of the Department of Health (DOH) against irresponsible sex but not the distribution of condoms in public schools as the DOH is toying with the idea of making condoms available in public schools starting in 2017 (Depasupil, 2016).

If there were respondents who think that condom protects one from both pregnancy and HIV, there were also those who think that it only protects from pregnancy and not from HIV infection. Also, seafarers admitted that condom spoils sexual pleasure. Men highly prefer unprotected sex for the sake of pleasure than women (Conley & Collins, 2005) which is in contrary to the findings of Helweg-Larsen and Collins (1994) that did show gender differences on "pleasure factor" during sex.

Other misconceptions about use of condoms for HIV prevention among Filipinos male seafarers were reported by Saniel and De los Reyes (2010) such as the tendency of the condom to break during sex, to leak because of factory defects, and they can come off during sex. It was long documented that the Philippines has the lowest documented rates of condom use in Asia (Aquino et al., 2003).

Majority of the seafarers in this study acknowledged that the risk of HIV infection be reduced by having sex with one faithful partner. This rate is lower compared to the result of Nubed and Akoachere (2016) which showed that 82.2% of high school students indicated that transmission could be reduced by having sex with one faithful uninfected partner. This difference in rate is expected because seafarers and students do not have the same attitudes with sex due to demographical differences. However, Saniel and De los Reyes (2010) showed that Filipino male seafarers who are unmarried are more likely to report multiple sex partnerships compared to married men. They also showed that male Filipino seafarers who have inadequate knowledge about HIV transmission and prevention and those who are relatively young are also more likely to engage in multiple sex partnerships.

Awareness activities about HIV/AIDS have to be intensively conducted in Ozamiz City to enlighten the seafarers about the facts about the infection. The local government, academic institutions, civic organizations, and other stakeholders may join hands to help in the dissemination of preventive practices against HIV/AIDS.

Conclusion and Recommendations

There are considerable number of seafarers in Ozamiz City that performed risky sexual behaviors while abroad with multiple sex partners. Misconceptions about HIV transmission and infection persist among the seafarers that have to be addressed. Majority of the seafarers possess positive attitude expressed in their acceptance for people living with HIV. The negative attitudes that persist among the seafarers include inconsistent use of condom with single or multiple sex partners. Academic institutions, non-government organizations, and other

stakeholders may utilize the findings of this study to conduct regular seminar in collaboration with the DOH of Ozamiz City in order to increase the awareness of seafarers or even maritime students about the risks of HIV and the practices that prevent HIV transmission and infection.

Acknowledgment

The authors would like to express their gratitude to the time offered by the seamen during the data gathering.

Literature Cited

- Aquino, C., DAgnes, L., Castro, J., Borromeo, M., & Schmidt, K. (2003). Community outreach and peer education for HIV and AIDS prevention. The AIDS Surveillance and Education Project experience in the Philippines.
- Audet, C. M., McGowan, C. C., Wallston, K. A., & Kipp, A. M. (2013). Relationship between HIV stigma and self-isolation among people living with HIV in Tennessee. *PloS one*, 8(8), e69564. doi: <https://doi.org/10.1371/journal.pone.0069564>
- Benagiano, G., Carrara, S., Filippi, V., & Brosens, I. (2011). Condoms, HIV and the Roman Catholic church. *Reproductive Biomedicine Online*, 22(7), 701-709. <https://doi.org/10.1016/j.rbmo.2011.02.007>
- Bronfman, M. N., Leyva, R., Negroni, M. J., & Rueda, C. M. (2002). Mobile populations and HIV/AIDS in Central America and Mexico: research for action. *Aids*, 16, S42-S49.

Carey, M. P., & Schroder, K. E. (2002). Development and psychometric evaluation of the brief HIV Knowledge Questionnaire. *AIDS Education and Prevention, 14*(2), 172-182. doi: <https://doi.org/10.1521/aeap.14.2.172.23902>

Centers for Disease Control and Prevention (CDC). (2004). Transmission of primary and secondary syphilis by oral sex--Chicago, Illinois, 1998-2002. *MMWR. Morbidity and Mortality Weekly Report, 53*(41), 966.

Centers for Disease Control and Prevention (CDC). (2014). HIV/AIDS basic statistics. Retrieved from <http://www.cdc.gov/hiv/basics/statistics.html>. Accessed, 1.

Chandra, A., Copen, C. E., & Mosher, W. D. (2013). Sexual behavior, sexual attraction, and sexual identity in the United States: Data from the 2006–2010 National Survey of Family Growth. In *International Handbook on the Demography of Sexuality* (pp. 45-66). Springer, Dordrecht.

Conley, T. D., & Collins, B. E. (2005). Differences between condom users and condom nonusers in their multidimensional condom attitudes. *Journal of Applied Social Psychology, 35*(3), 603-620. <https://doi.org/10.1111/j.1559-1816.2005.tb02137.x>

Depasupil, W. (2016, December 4). ‘No to free condoms’. *Nation*. Retrieved from <https://www.manilatimes.net/no-free-condoms/299987/>

Diaz, J. (2012, July 3). Pinoy seamen urged to test for HIV. *The Philippine Star*.

- Digal, S. (2010). Government hands out free condoms against AIDS, but tolerates prostitution, Church says. AsiaNews.it. Retrieved from <http://www.asianews.it/news-en/Government-hands-out-free-condoms-against-AIDS,-but-tolerates-prostitution,-Church-says-17734.html>
- Durojaiye, O. C. (2011). Knowledge, attitude and practice of HIV/AIDS: Behavior change among tertiary education students in Lagos, Nigeria. *Annals of Tropical Medicine and Public Health*, 4(1), 18.
- Edwards, S., & Carne, C. (1998a). Oral sex and the transmission of viral STIs. *Sexually Transmitted Infections*, 74(1), 6-10.
- Edwards, S., & Carne, C. (1998b). Oral sex and transmission of non-viral STIs. *Sexually Transmitted Infections*, 74(2), 95-100.
- Farr, A. C., & Wilson, D. P. (2010). An HIV epidemic is ready to emerge in the Philippines. *Journal of the International AIDS Society*, 13(16), 1-8. doi: <https://doi.org/10.1186/1758-2652-13-16>
- Ford, K., & Chamrathirong, A. (2008). Migrant seafarers and HIV risk in Thai communities. *AIDS Education & Prevention*, 20(5), 454-463. doi: <https://doi.org/10.1521/aeap.2008.20.5.454>
- Fuster-Ruizdeapodaca, M. J., Molero, F., Holgado, F. P., & Mayordomo, S. (2014). Enacted and internalized stigma and quality of life among people with HIV: The role of group identity. *Quality of Life Research*, 23(7), 1967-1975. doi: <https://doi.org/10.1007/s11136-014-0653-4>

Gupta, G. R., Parkhurst, J. O., Ogden, J. A., Aggleton, P., & Mahal, A. (2008). Structural approaches to HIV prevention. *The Lancet*, 372(9640), 764-775. doi: [https://doi.org/10.1016/S0140-6736\(08\)60887-9](https://doi.org/10.1016/S0140-6736(08)60887-9)

Hawkins, D. A. (2001). Oral sex and HIV transmission. *Sexually Transmitted Infections*, 77(5), 305-308. doi: <http://dx.doi.org/10.1136/sti.77.5.307>

Helweg-Larsen, M., & Collins, B. E. (1994). The UCLA multidimensional condom attitudes scale: Documenting the complex determinants of condom use in college students. *Health Psychology*, 13(3), 224-237. doi: <http://dx.doi.org/10.1037/0278-6133.13.3.224>

Herrmann, S., McKinnon, E., Hyland, N. B., Lalanne, C., Mallal, S., Nolan, D., ... & Duracinsky, M. (2013). HIV-related stigma and physical symptoms have a persistent influence on health-related quality of life in Australians with HIV infection. *Health and Quality of Life Outcomes*, 11(56), 1-13. doi: <https://doi.org/10.1186/1477-7525-11-56>

Human Rights Watch. (2016). Philippines: Policy failures fuel HIV epidemic. Retrieved from <https://reliefweb.int/report/philippines/philippines-policy-failures-fuel-hiv-epidemic>

Jacobs, R. (2013). The strange sexual quirk of Filipino seafarers. *The Atlantic*. Retrieved from <https://www.theatlantic.com/international/archive/2013/08/the-strange-sexual-quirk-of-filipino-seafarers/278285/>

Joint United Nations Programme on HIV/AIDS. (2002). *Global Report: UNAIDS Report on the Global Aids Epidemic 2002*. UNAIDS.

- Joint United Nations Programme on HIV/AIDS. (2010). *Global Report: UNAIDS Report on the Global Aids Epidemic 2010*. UNAIDS.
- Joint United Nations Programme on HIV/AIDS. (2008). *2008 Report on the Global AIDS Epidemic*. UNAIDS.
- Kaminskyy, V., & Zhivotovsky, B. (2010). To kill or be killed: How viruses interact with the cell death machinery. *Journal of Internal Medicine*, 267(5), 473-482. doi: <https://doi.org/10.1111/j.1365-2796.2010.02222.x>
- Lucea, M. B., Hindin, M. J., Gultiano, S., Kub, J., & Rose, L. (2013). The context of condom use among young adults in the Philippines: implications for HIV prevention. *Health Care for Women International*, 34(3-4), 227-248. doi: 10.1080/07399332.2012.721414
- Malalis, A. C. (2013, March 27). AIDS cases up in NorMin. *Sun.Star Cagayan de Oro*. Retrieved from <http://archive.sunstar.com.ph/cagayan-de-oro/local-news/2013/03/27aids-cases-normin-274992>
- Mateo, R. Jr., Sarol Jr, J. N., & Poblete, R. (2004). HIV/AIDS in the Philippines. *AIDS Education and Prevention*, 16(Supplement A), 43-52. doi: <https://doi.org/10.1521/aeap.16.3.5.43.35519>
- Mayer, K. H. (2011). Sexually transmitted diseases in men who have sex with men. *Clinical Infectious Diseases*, 53(suppl_3), S79-S83. doi: <https://doi.org/10.1093/cid/cir696>
- Meekers, D., Klein, M., & Foyet, L. (2003). Patterns of HIV risk behavior and condom use among youth in Yaoundé and Douala, Cameroon. *AIDS and Behavior*, 7(4), 413-420. doi: <https://doi.org/10.1023/B:AIBE.0000004733.26053.c8>

Morisky, D. E., Lyu, S. Y., & Urada, L. A. (2009). The role of non-formal education in combating the HIV epidemic in the Philippines and Taiwan. *Prospects*, 39(4), 335-357. doi: <https://doi.org/10.1007/s11125-010-9133-y>

Nordqvist, C. (2010). HIV/AIDS: Causes, symptoms and treatments. Retrieved from: <http://www.medicalnewstoday.com/articles/17131.php>.

Nubed, C. K., & Akoachere, J. F. T. K. (2016). Knowledge, attitudes and practices regarding HIV/AIDS among senior secondary school students in Fako Division, South West Region, Cameroon. *BMC Public Health*, 16(847), 1-10. doi: <https://doi.org/10.1186/s12889-016-3516-9>

Olatunde, P., & Joshua, P. (2012). Determinants of female students' performance in primary schools in Loitokitok District of Rift Valley Province, Kenya. *International Journal of Business and Social Science*, 3(12).

Parekh, B. S., Kalou, M. B., Alemnji, G., Ou, C. Y., Gershy-Damet, G. M., & Nkengasong, J. N. (2010). Scaling up HIV rapid testing in developing countries: Comprehensive approach for implementing quality assurance. *American Journal of Clinical Pathology*, 134(4), 573-584. doi: 10.1309/AJCPTDIMFR00IKYX

Rwenge, M. (2000). Sexual risk behaviors among young people in Bamenda, Cameroon. *Higher Education*, 5(8.1), 1-6. doi: 10.2307/2648300

Saniel, O. P., & De los Reyes, S. J. (2010). Prevalence of risky behaviours and determinants of multiple sex partnership among male Filipino seafarers. *International Maritime Health*, 62(4), 215-223.

- Sescon, J. N. M. (2015, January 1). Safer oral sex. *Outrage*. Retrieved from <https://outragemag.com/safer-oral-sex/>
- Sullivan, P. S., Salazar, L., Buchbinder, S., & Sanchez, T. H. (2009). Estimating the proportion of HIV transmissions from main sex partners among men who have sex with men in five US cities. *Aids*, *23*(9), 1153-1162.
- Thanavanh, B., Harun-Or-Rashid, M., Kasuya, H., & Sakamoto, J. (2013). Knowledge, attitudes and practices regarding HIV/AIDS among male high school students in Lao People's Democratic Republic. *Journal of the International AIDS Society*, *16*(1), 17387. doi: <https://doi.org/10.7448/IAS.16.1.17387>
- Tomaszunas, S. (1994). Knowledge, attitude, and practices observed in seafarers concerning HIV infection and AIDS. *Journal of Travel Medicine*, *1*(3), 169-171.
- Vangroenweghe, D. (2001). The earliest cases of human immunodeficiency virus type 1 group M in Congo-Kinshasa, Rwanda and Burundi and the origin of acquired immune deficiency syndrome. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences*, *356*(1410), 923-925. doi: <https://doi.org/10.1098/rstb.2001.0876>
- Varghese, B., Maher, J. E., Peterman, T. A., Branson, B. M., & Steketee, R. W. (2002). Reducing the risk of sexual HIV transmission: Quantifying the per-act risk for HIV on the basis of choice of partner, sex act, and condom use. *Sexually Transmitted Diseases*, *29*(1), 38-43.
- World Health Organization. (2011). HIV/AIDS Prevention and Control. Geneva: World Health Organization. Retrieved from <http://www.searo.who.int/en/Section10/Section18/Section2009.htm>

Wu, X., Chen, J., Huang, H., Liu, Z., Li, X., & Wang, H. (2015). Perceived stigma, medical social support and quality of life among people living with HIV/AIDS in Hunan, China. *Applied Nursing Research*, 28(2), 169-174.

Yadav, S. (2010). Perceived social support, hope, and quality of life of persons living with HIV/AIDS: A case study from Nepal. *Quality of Life Research*, 19(2), 157-166. doi: <https://doi.org/10.1007/s11136-009-9574-z>