

Knowledge About HIV-AIDS and Co-infection Rate Among HIV-AIDS Patients: A Study Among Different Community Clinics of Chattogram District, Bangladesh

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ABSTRACT

Background: Human immunodeficiency virus infection and acquired immune deficiency syndrome (HIV/AIDS) is a spectrum of conditions caused by infection with the human immunodeficiency virus (HIV). Following initial infection, a person may not notice any symptoms, or may experience a brief period of influenza-like illness. Typically, this is followed by a prolonged period with no symptoms. If the infection progresses, it interferes more with the immune system, increasing the risk of developing common infections such as tuberculosis, as well as other opportunistic infections.

Objective: To reveal the Clinical Conditions and Co-infection rates by different infectious agents among the patients of HIV-AIDS.

Materials & Methods: It is a descriptive type of cross-sectional study. A pre-tested, semi structured and modified interview administrated questionnaire was used to collect data. Non - randomized, sequential, and purposive and plenitude sampling methods have been tried by following face to face interview of the participants.

Results & Discussions: In this study the percentage of male was 63% and the

percentage of female was 37%. 49% respondents were in 33-47 years of age groups. In this study 55% respondents were up to primary education. We found out that 36% of the respondents were part-time workers. It was seen that 44% respondents' monthly family income was between 10,000 – 20,000 BDT. It was observed that 98% of the respondents knew about HIV/AIDS. It was observed that 63% of the respondents knew about the causative agent of HIV/AIDS. Majority of the respondents were HIV positive for more than 3 years. 51% of the respondents were informed that HIV/AIDS is not infectious. 82% of the respondents were aware that HIV/AIDS is not curable by drugs. 71% of the respondents knew about the symptoms of HIV/AIDS. 92% respondents in unsafe physical relation HIV/AIDS transmits. Here maximum respondents had different infections.

Conclusion: It was seen that the respondents of this study did not have knowledge on HIV/AIDS at satisfactory level. Still a portion of them is wrong and replied incorrect answers or did not know about different issues regarding HIV-AIDS though some of them were replying satisfactorily.

Keywords: HIV, Community Clinics, Tuberculosis (TB), Antiretroviral Therapy, Cancer.

1. INTRODUCTION

The present pandemic of human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) has affected at least 169 countries in the world having a total of 30.6 million cases and 11.7 million deaths, as of December 1997 (Baucom et al., 2019). The infection is rapidly rising in some Southeast Asian countries including Thailand, Myanmar and India (Liew, 2022). According to the World Health Organization, Bangladesh is one of the pattern III countries for HIV/AIDS epidemic, meaning that the infection has not reached one adult per 1000 in that country (Gumede et al., 2022). Nevertheless, several factors make Bangladesh clearly at risk of the spread of HIV: (a) physical proximity of the country with India and Myanmar where the prevalence of HIV/AIDS is high; (b) frequent visits of the people of Bangladesh to neighboring countries; (c) the combination of a high rate of illiteracy and poverty, and (d) a high rate of STDs in urban Bangladesh. Possibly, religious and social restrictions in sexual practices and some other factors may impede the rapid spread of the disease in Bangladesh. In fact, data are still scarce to quantify the disease burden precisely in that country. Human immunodeficiency virus infection and acquired immune deficiency syndrome (HIV/AIDS) is a spectrum of conditions caused by infection with the human immunodeficiency virus (HIV) (Clemens et al., 2020). Following initial infection a person may not notice any symptoms, or may experience a brief period of influenza-like illness (Abu & Kotur, 2022). Typically, this is followed by a prolonged period with no symptoms (Aborode et al., 2021). If the infection progresses, it interferes more with the immune system, increasing the risk of developing common infections such as tuberculosis, as well as other opportunistic infections, and tumors which are otherwise

rare in people who have normal immune function (Granich & Gupta, 2020). These late symptoms of infection are referred to as acquired immunodeficiency syndrome (AIDS). This stage is often also associated with unintended weight loss (Purnomo, 2022). HIV is spread primarily by unprotected sex (including anal and oral sex), contaminated blood transfusions, hypodermic needles, and from mother to child during pregnancy, delivery, or breastfeeding (Purnomo, 2022). Some bodily fluids, such as saliva, sweat and tears, do not transmit the virus (Granich et al., 2022). HIV is a member of the group of viruses known as retroviruses (He, 2021). Since 2000, the Government of Bangladesh has worked with the World Bank on the HIV/AIDS Prevention Project, a \$26 million program designed to prevent HIV from spreading within most-at-risk populations and into the general population. The program is being integrated into the country's Health, Nutrition and Population Program, which is supported by the government and external donors. In 2003, a national youth policy was established on reproductive health, including HIV/AIDS awareness. Since 2006, students in 21,500 secondary and upper-secondary schools have been taught about HIV/AIDS issues. The educational program introduces a "life skills" curriculum, including a chapter on HIV/AIDS drafted with assistance from the United Nations Children's Fund (UNICEF) (CDC, 2020). Bangladesh developed its first Antiretroviral Therapy (ART) treatment guidelines in 2006, with PLHIV able to buy subsidized antiretroviral drugs from specified pharmacies (Guets et al., 2022). Unfortunately, most HIV diagnostic facilities are provided by NGOs based in Dhaka and most rural and cross-border migrants miss out on ART, HIV testing and other associated care and support services. If they seek private care, the cost is often beyond their means (González López-Valcárcel & Vallejo-Torres, 2021). Bangladesh's HIV/AIDS prevention program started in 1985, when the Minister of Health and Family Welfare established the National

AIDS and Sexually Transmitted Diseases Program under the overall policy support of the National AIDS Council (NAC), headed by the President and chaired by the Minister of Health and Family Welfare. The National AIDS/STD Program has set in place guidelines on key issues including testing, care, blood safety, sexually transmitted infections, and prevention among youth, women, migrant populations, and sex workers. In 2004, a six-year National Strategic Plan (2004–2010) was approved. The country's HIV policies and strategies are based on other successful family planning programs in Bangladesh and include participation from schools, as well as religious and community organizations. The AIDS Initiative Organization was launched in 2007 to fund for those without proper medication to combat the virus. The National HIV and AIDS Communication Strategy (2006–2010) was also developed and launched (González López-Valcárcel & Vallejo-Torres, 2021).

1.1 Tuberculosis (TB)

Worldwide, tuberculosis (TB) is the most common co-infection among people living with HIV. It can be very serious and if it's not treated, it can kill. Symptoms include a persistent cough, fever, unintended weight loss and night sweats. Healthcare professional should test for tuberculosis and if have got it, should receive treatment which cures the infection.

1.2 Hepatitis B and Hepatitis C

Hepatitis B and hepatitis C are also common among people living with HIV and can be treated. Both are common among people who inject drugs. There is a vaccine available for hepatitis B, which is more common in Southeast Asia and sub-Saharan Africa. Hepatitis affects the liver and can be very serious if left untreated.

1.3 Cancer

Although HIV treatment advances now mean that AIDS-defining cancers (such as Kaposi's sarcoma) are rarely a risk, research is showing that people living with HIV have an increased risk of developing age-related or lifestyle cancers such as lung or liver cancer.

If a woman living with HIV, or a transgender man (a person who was assigned female at birth but who identifies as male) who still has a cervix and living with HIV, have a higher risk of developing cervical cancer. If possible, should go for cervical screening once a year to detect any changes to the cells of the cervix.

1.4 HIV-Associated Neurocognitive Disorders (HAND)

We know very little about how HIV affects the brain. What we do know is that, even when people living with HIV are on effective treatment, they still have an increased risk of developing neurocognitive disorders in later life. The severity of these conditions can range from occasional memory loss to dementia. If diagnosed with HAND, it might be mild or moderate and not progress to anything more. HAND appears to be more common among people co-infected with HIV and hepatitis C.

1.5 HIV and Opportunistic Infections

When someone living with HIV has a weakened immune system (shown by a low CD4 count), they are at risk of 'opportunistic infections' which is when infections take the opportunity of the immune system being weak. Common opportunistic infections associated with HIV include:

- Cryptococcal Meningitis
- Toxoplasmosis
- Pcp (A Type of Pneumonia)
- Esophageal Candidiasis
- Certain Cancers, Including Kaposi's sarcoma.

Treatment is recommended as soon as the diagnosis is made (Mahmood, 2020). Without treatment, the average survival time after infection is 11 years (Mahmood, 2020). In 2018, about 37.9 million people were living with HIV and it resulted in 770,000 deaths (Guets et al., 2022). An estimated 20.6 million of these live in eastern and southern Africa (Granich et al., 2022). Between the time that AIDS was identified (in the early 1980s) and 2018, the disease caused an estimated 32 million

deaths worldwide. HIV/AIDS is considered a pandemic—a disease outbreak which is present over a large area and is actively spreading (Mahmood, 2021). HIV made the jump from other primates to humans in west-central Africa in the early-to-mid 20th century (Tebit et al., 2020). AIDS was first recognized by the United States Centers for Disease Control and Prevention (CDC) in 1981 and its cause—HIV infection—was identified in the early part of the decade. HIV/AIDS has had a large impact on society, both as an illness and as a source of discrimination. The disease also has large economic impacts (R. C. Paul et al., 2020). There are many misconceptions about HIV/AIDS, such as the belief that it can be transmitted by casual non-sexual contact. The disease has become subject to many controversies involving religion, including the Catholic Church's position not to support condom use as prevention (M. S. Uddin et al., 2021). It has attracted international medical and political attention as well as large-scale funding since it was identified in the 1980s. Bangladesh's HIV/AIDS prevention program started in 1985, when the Minister of Health and Family Welfare established the National AIDS and Sexually Transmitted Diseases Program under the overall policy support of the National AIDS Council (NAC), headed by the President and chaired by the Minister of Health and Family Welfare. The National AIDS/STD Program has set in place guidelines on key issues including testing, care, blood safety, sexually transmitted infections, and prevention among youth, women, migrant populations, and sex workers. In 2004, a six-year National Strategic Plan (2004–2010) was approved (Mitra et al., 2024). The country's HIV policies and strategies are based on other successful family planning programs in Bangladesh and include participation from schools, as well as religious and community organizations. The AIDS Initiative Organization was launched in 2007 to fund for those without proper medication to combat the virus. The National HIV and AIDS Communication Strategy (2006–2010)

was also developed and launched (Sharif et al., 2020). Since 2000, the Government of Bangladesh has worked with the World Bank on the HIV/AIDS Prevention Project, a \$26 million program designed to prevent HIV from spreading within most-at-risk populations and into the general population. The program is being integrated into the country's Health, Nutrition and Population Program, which is supported by the government and external donors. In 2003, a national youth policy was established on reproductive health, including HIV/AIDS awareness. Since 2006, students in 21,500 secondary and upper-secondary schools have been taught about HIV/AIDS issues. The educational program introduces a "life skills" curriculum, including a chapter on HIV/AIDS drafted with assistance from the United Nations Children's Fund (UNICEF). Bangladesh developed its first Antiretroviral Therapy (ART) treatment guidelines in 2006, with PLHIV able to buy subsidized antiretroviral drugs from specified pharmacies (Deora et al., 2022). Unfortunately, most HIV diagnostic facilities are provided by NGOs based in Dhaka and most rural and cross-border migrants miss out on ART, HIV testing and other associated care and support services. If they seek private care, the cost is often beyond their means. Currently, the program funded by the Global Fund is leading the national response to fight HIV and AIDS (NIZAMI et al., 2020). Bangladesh had received 3 grants on HIV/AIDS from the Global Fund to fight AIDS, Tuberculosis and Malaria: Round 2 from 2004 to 2009, Round 6 from 2007 to 2012 and Rolling Continuation Channel (RCC) from 2009 to 2015. The Round 2 grant focused mainly on prevention of HIV among young people with strategies including (Jana et al., 2024). Bangladesh is one of the countries of the world where there is low human immunodeficiency virus (HIV) prevalence, but is still considered to be at high risk because of presence of many risk factors for spread of HIV. The national prevalence among the key population groups remains low – people who inject drug

(PWID) (1.1%), female sex worker (FSW) (0.3%), male sex worker (MSW) (0.4%), men who have sex with men (MSM) (0.4%) and transgender (TG)/hijra (1.0%); but it remains extremely vulnerable due to its socio-economic and cultural settings. After all, knowledge and practice are reducing risk factors of getting HIV in Bangladesh and higher level of socio-demographic and economic status, especially among the men work to prevent HIV.² The first case of HIV in Bangladesh was detected in 1989 and till December 2015 the total number of detected cases was 4143, of whom 658 died, leaving 3485 known people living with HIV (Nath et al., 2022). Less than one-third of detected people living with HIV are women; but the majority of infections are likely to remain undetected, and the total national estimate is about 9,000 people living with HIV. HIV prevalence has never exceeded 0.1% in the general population and has remained below 1% for most key populations. According to the NASP (2016) report, key populations have high HIV prevalence in certain geographical areas. Among the TG/Hijras, the HIV prevalence was 7.1% in Hilli which is a small border town in the Northwestern part of Bangladesh bordering the Indian State of West Bengal (Nizam et al., 2020). The prevalence was 1.6% among casual sex workers in Hill though HIV prevalence was below 1% in most groups of female sex workers; on the other hand, HIV prevalence among males who inject drugs in Dhaka city has increased steadily over the years from 1.4% in 2000 to 7.0% in 2007 and it was 5.3% in 2011.^[32] The pattern of behaviors that boost the spread of the HIV infection is well established in the Bangladesh society (Patel et al., 2022). By the study of ICDDR (2011) among male injecting drug users indicated that nearly 44.2% of the PWID share needles and syringes and PWID male visiting female sex workers was estimated 21.9%.⁷ Although a significant portion of the male injecting drug users reported to use condom during their last sex with sex workers, condom use with their regular partners or spouses was reported by only

27.7%. Selling sex to procure drugs is quite common in many parts of Bangladesh. Evidence shows that some female drug users in Bangladesh turn to sex workers out of financial necessity to support their addiction (G. M. Uddin et al., 2020). The overlap between sex work and injecting drug use is considered as one of the most dangerous conditions for rapid spread of HIV and other sexually transmitted infections (STIs) and there are more possibilities for transmission to the general population.⁹ Women who are involved in commercial sex are very often largely dependent on their partners for the procurement and use of drugs. There are well-documented reports of risk behaviors among MSM in Bangladesh. A behavioral survey conducted in a sample of MSM in Dhaka indicated that 71% of MSM reported having anal sex with commercial or non-commercial male partners within the month prior to the survey, and only 26% reported use of condoms during their last anal sex. Moreover, 30% of the respondents bought sex from female sex workers and another 46.7% purchased sex services from male sex workers in the last one month preceding the survey. It is also found that nearly 17.7% of MSM reported at least one symptom of sexually transmitted infection (STI) in the past one year. A recent behavioral survey conducted by ICDDR in 2010 among TG/Hijras in Dhaka reported that most TG/Hijra (87.5%) had anal sex with male partners in the last month and only 19.4% used condom during the last sex act (Wang et al., 2021). A substantial proportion of youth have multiple sex partners; drug users share and re-use their needles; sex workers have poor condom use and high STI prevalence; unscreened blood transfusion and increasing high-risk sexual behaviors are common. The frequency of pre-marital and extra-marital sex and the large number of sexual acts with sex workers are commonly known factors associated with the transmission of HIV in Bangladesh. Among the general population, approximately 10% of men reported purchase of sex from female sex workers (Mungmunpantipantip & Wiwanitkit, 2024):

Another study on unmarried young people revealed that almost one in three (28 percent) of them reported one or more symptoms of STI in the past 12 months. All these risk behaviors have been contributing to the continued HIV transmission among key population groups and, if appropriate measures are not taken, it may spread to the general population. To overcome the situation, appropriate intervention should increase comprehensive knowledge on HIV and STIs across communities and also the information on sexual and reproductive health as well as importance of safer sexual practices, condom usage, use of sterile injecting equipment and access to treatment for STIs needs to be disseminated among both the communities and the key population. It is also recommended to ensure age disaggregated monitoring of prevention, care and treatment programs in all 64 districts of Bangladesh. This study has been conducted solely to reveal the knowledge about HIV-AIDS and Co-infection rate among HIV -AIDS Patients in different community clinics of Chattogram, Bangladesh (R. C. Paul et al., 2020)

2. OBJECTIVES OF THE STUDY

The general objective of this study is to reveal the knowledge about HIV/AIDS and Co-infection rate among HIV/AIDS Patients in different community clinics of Chattogram, Bangladesh. The specific objectives are as follows:

- (i) Evaluate the Co-infection rates among the patients;
- (ii) To find out the socio-demographic characteristics of the respondents.

RQ: What about the knowledge of HIV/AIDS and Co-infection rate among the HIV positive patients in Chattogram, Bangladesh?

3. LITERATURE REVIEW

Human immunodeficiency virus infection and acquired immune deficiency syndrome (HIV/AIDS) is a spectrum of conditions caused by infection with the human immunodeficiency virus (HIV). Following

initial infection, a person may not notice any symptoms, or may experience a brief period of influenza-like illness (A. Paul & Paul, 2020). Typically, this is followed by a prolonged period with no symptoms. If the infection progresses, it interferes more with the immune system, increasing the risk of developing common infections such as tuberculosis, as well as other opportunistic infections, and tumors which are otherwise rare in people who have normal immune function (Jana et al., 2024). These late symptoms of infection are referred to as acquired immunodeficiency syndrome (AIDS). This stage is often also associated with unintended weight loss (Abdoul-Latif et al., 2024). HIV is spread primarily by unprotected sex (including anal and oral sex), contaminated blood transfusions, hypodermic needles, and from mother to child during pregnancy, delivery, or breastfeeding. Some bodily fluids, such as saliva, sweat and tears, do not transmit the virus. HIV is a member of the group of viruses known as retroviruses. Methods of prevention include safe sex, needle exchange programs, treating those who are infected, and pre- & post-exposure prophylaxis (Hakim et al., 2021). Disease in a baby can often be prevented by giving both the mother and child antiretroviral medication. There is no cure or vaccine; however, antiretroviral treatment can slow the course of the disease and may lead to a near-normal life expectancy (Faruk et al., 2022). Treatment is recommended as soon as the diagnosis is made. Without treatment, the average survival time after infection is 11 years (Sami et al., 2021). In 2018, about 37.9 million people were living with HIV and it resulted in 770,000 deaths (Kayuni et al., 2022). An estimated 20.6 million of these live in eastern and southern Africa (Organization, 2021). Between the time that AIDS was identified (in the early 1980s) and 2018, the disease caused an estimated 32 million deaths worldwide (Wilkes et al., 2023). HIV/AIDS is considered a pandemic—a disease outbreak which is present over a large area and is actively

spreading (Andrés et al., n.d.). HIV made the jump from other primates to humans in west-central Africa in the early-to-mid 20th century (Abiodun et al., 2022). AIDS was first recognized by the United States Centers for Disease Control and Prevention (CDC) in 1981 and its cause—HIV infection—was identified in the early part of the decade (Tebit et al., 2020). HIV/AIDS has had a large impact on society, both as an illness and as a source of discrimination (Liew, 2022). The disease also has large economic impacts (Baucom et al., 2019). There are many misconceptions about HIV/AIDS, such as the belief that it can be transmitted by casual non-sexual contact (Aborode et al., 2021). The disease has become subject to many controversies involving religion, including the Catholic Church's position not to support condom use as prevention (Gumede et al., 2022). It has attracted international medical and political attention as well as large-scale funding since it was identified in the 1980s (Clemens et al., 2020).

4. METHODS AND MATERIALS

It is a descriptive type of cross-sectional study. Different HIV-AIDS patients in of Chattogram District have been covered as study population. This study has been started from June 2022 December, 2022. Different areas of Chattogram District, Bangladesh, have been covered as study area. Populations with given consent who willingly joined or participate in the study living in the area. Populations who felt unwilling to participate and who is unable to provide information due to physical and mental illness or handicapped and not permanently living in the area. A pre-tested, semi structured and modified interview administrated questionnaire have been followed to collect data properly. Non-randomized, sequential, purposive and plenitude sampling methods have been followed. By following face to face interview of the participants. All interview questionnaire was checked for its

completeness, accuracy and consistency to exclude missing or incomplete data. Then data was checked, cleaned and edited again before analysis. The data was analyzed by using excel sheet. The sample size was determined by using the following formula,

$$n = \frac{z^2pq}{d^2}$$

But due to financial constraint, Covid-19 pandemic situation and time limitation the researchers took 100 samples according to guide's decision.

5. LIMITATIONS

Due to inclusion and exclusion criteria the findings might be associated with biases a little bit.

6. QUALITY CONTROL AND ASSURANCE

Following measures have been taken for quality control & quality assurance:

1. Regular assistance and guidance from the supervisor taken for conducting interview.
2. Data collection and analysis performed by the researcher.
3. Report made with the respondents before data collection.
4. Data were collected by trained data collectors having exclusive experience in this area techniques of face-to-face interview.
5. Data checked and rechecked for reliability.
6. A semi-structured questionnaire used.
7. Questionnaire described in both English and Bengali languages for better understanding of respondents.

7. RESULTS

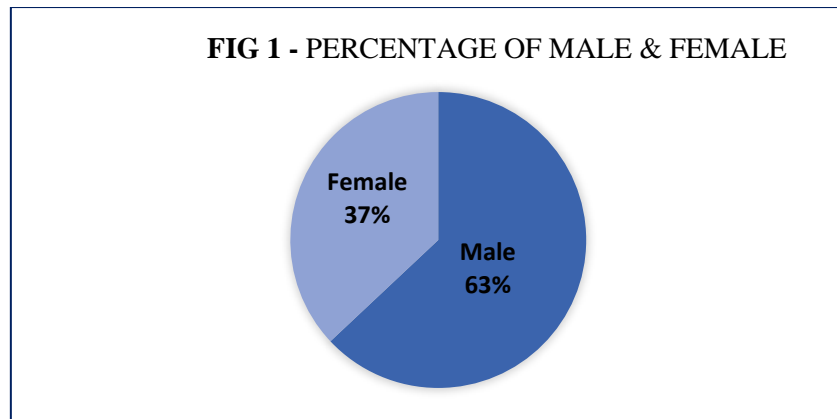


Fig 1 - Percentage of Male & Female Participated in this study

In this cross-sectional study, the percentage of male was 63% and the percentage of female was 37%. According to the Pie Chart male participants were more than female participants (Figure 1).

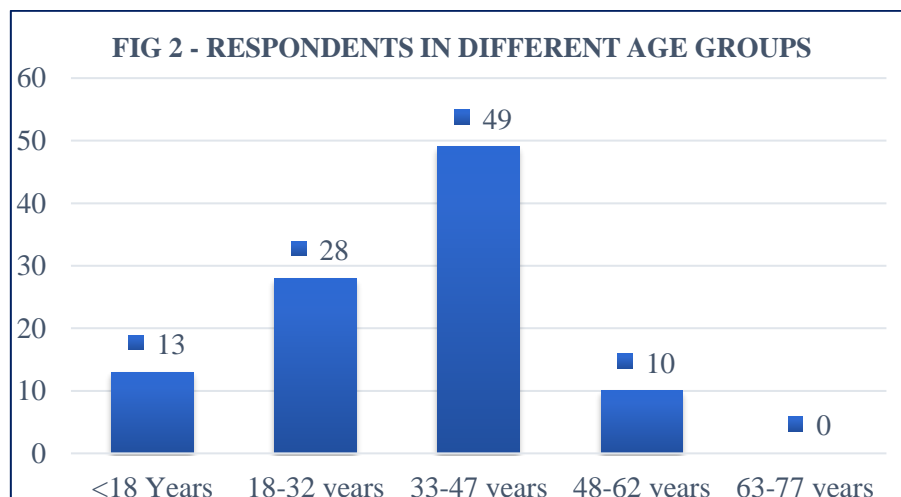


Fig 2 - Respondents in different age groups

We found 13% respondents in <18 years of age groups, 28% respondents were in 18-32 years of age groups, 49% respondents were in 33-47 years of age groups, 10%

respondents were in 48-62 years of age groups and there was no respondent in 63-77 years of age groups (Figure 2).

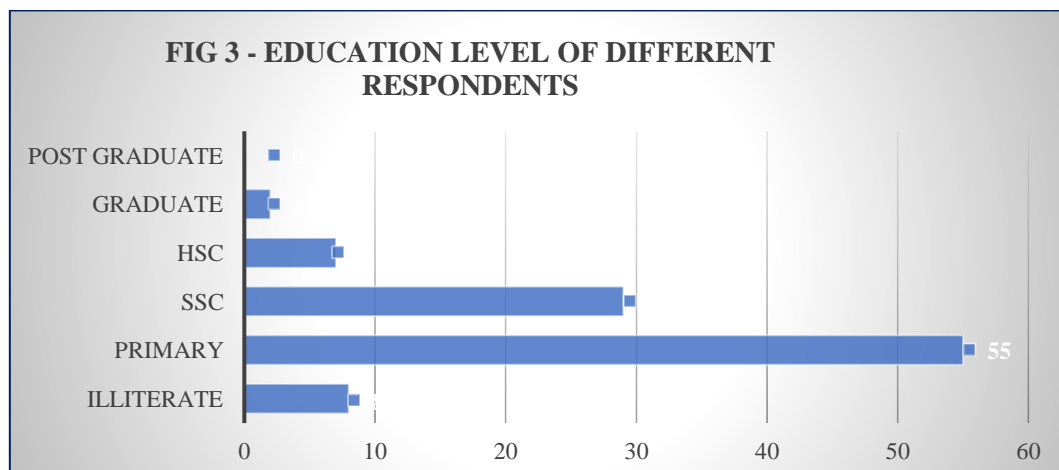


Fig 3 - Education level of different respondents

We found 8% respondents were illiterate, 55% respondents were up to primary education, 29% respondents completed SSC, 7% respondents completed HSC, only 2%

respondents completed graduation and there were no respondents completed post-graduation in this cross-sectional study (Figure 3).

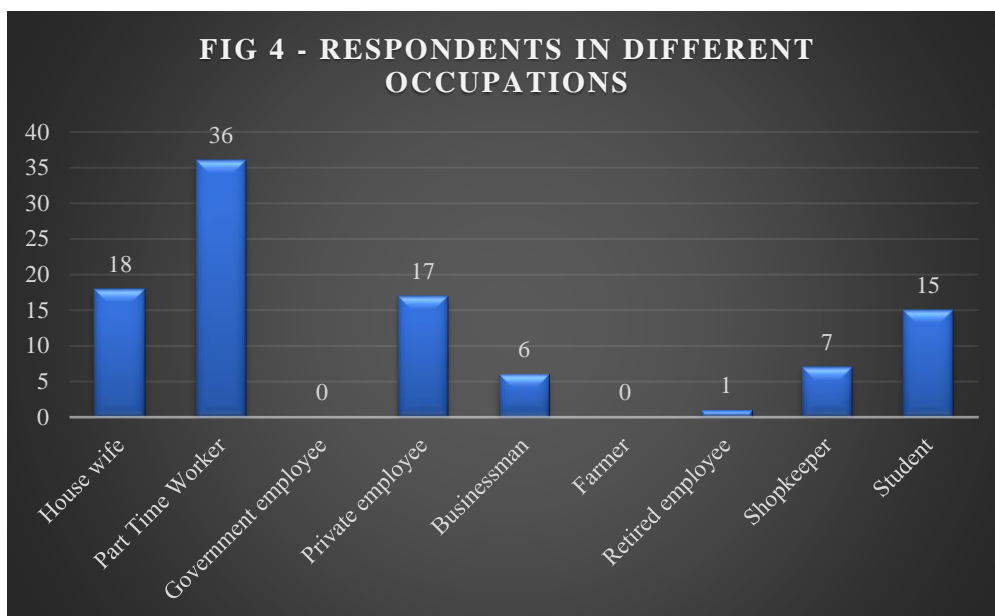


Fig 4 - Respondents in different occupations

In this study we found maximum respondents (36%) were part-time worker, some of them (18%) were housewives, 17% of them were private employees, 15% of them were

students, 7% respondents were shopkeepers and 6% respondents were businessmen (Figure 4).

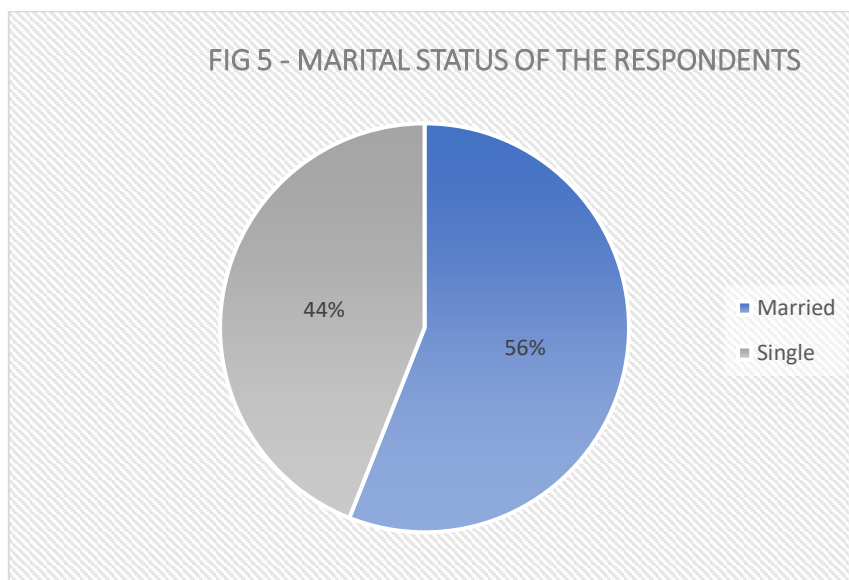


Fig 5 - Marital status of the respondents

Among the 100 respondents 56% of the respondents were married and 44% were single (Figure 5). According to the Pie Chart majority of the respondents were married in this study.

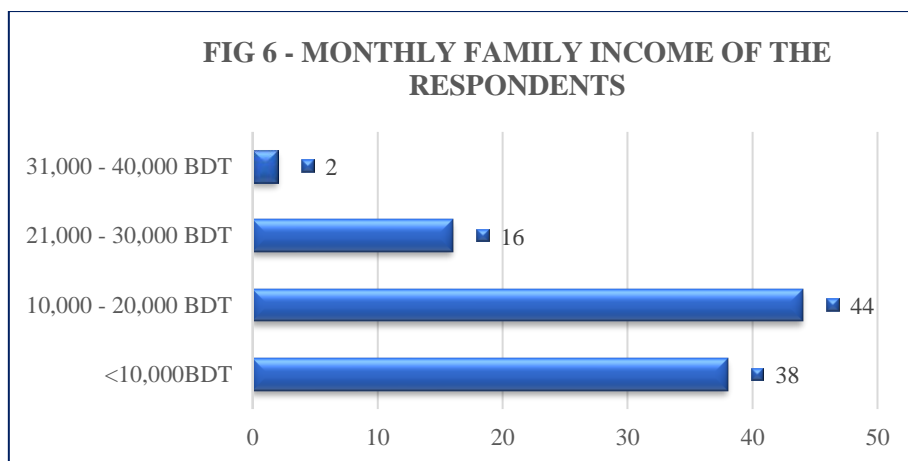


Fig 6 - Monthly family income of the respondents

According to their response 38% respondents replied that their monthly family income was <10,000 BDT, 44% of the respondents replied that their monthly family income was

10,000 – 20,000 BDT and only 2% of the respondent’s monthly family income was 31,000-40,000 BDT (Figure 6).

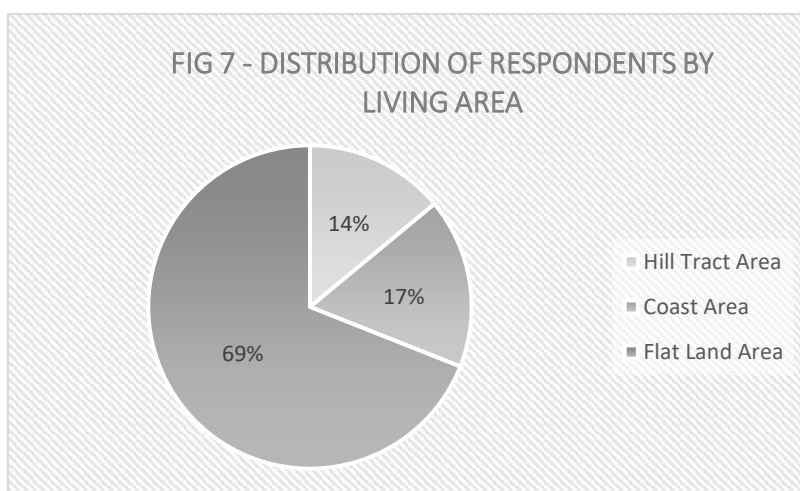


Fig 7 - Distribution of respondents by living area

According to their response 14% of the respondents were living in Hill tract area, 17% were living in Coastal area and 69% were living in Flat land area (Figure 7).

Sl. No.	Question	Options	Frequency	Percentage
1	Do you know about HIV-AIDS?	a. Yes	98	98%
		b. No	2	2%
Total			100	100%

In Table: 1, we can see 98% respondents replied positive and only 2% respondents replied negative when they were asked if they knew about HIV-AIDS or not (Table 1).

Sl. No.	Question	Options	Frequency	Percentage
2	Do you know the causative agent of AIDS?	a. Yes	63	63%
		b. No	37	37%
Total			100	100%

When the respondents were asked about the causative agent of AIDS, 63% respondents replied positive and remaining 37% respondents replied negative (Table 2).

Sl. No.	Question	Options	Frequency	Percentage
3	How long you are been diagnosed as HIV positive?	a. 1 year	14	14%
		b. 2 years	25	25%
		c. 3 years	14	14%
		d. 3 years +	47	47%
Total			100	100%

The respondents were asked “How long you are being diagnosed as HIV positive?” In the reply 14% respondents talked about 1 year,

25% respondents talked about 2 years, 14% respondents talked about 3 years and 47% respondents talked about 3 years (Table 3).

Sl. No.	Question	Options	Frequency	Percentage
4	Does HIV-AIDS infectious?	a. Yes	49	49%
		b. No	51	51%
Total			100	100%

Among all the respondents 49% respondents replied that HIV-AIDS is infectious and remaining 51% respondents told negative.

According to Table: 5 maximums (51%) respondents said that HIV-AIDS is not infectious (Table 4).

Sl. No.	Question	Options	Frequency	Percentage
5	Is HIV-AIDS curable by drugs?	a. Yes	18	18%
		b. No	82	82%
Total			100	100%

When the respondents were asked “Is HIV-AIDS curable by drugs?” 18% respondents replied positive and remaining 82% respondents replied negative (Table 5).

Sl. No.	Question	Options	Frequency	Percentage
6	Do you know the symptoms of HIV-AIDS?	a. Yes	71	71%
		b. No	29	29%
Total			100	100%

According to table 6, 71% respondents knew about the symptoms of HIV-AIDS and remaining 29% respondents did not know about the symptoms of HIV-AIDS.

Sl. No.	Question	Options	Frequency	Percentage
7	How HIV-AIDS transmits from one to other exactly?	a. Unsafe Physical Relation	92	92%
		b. Insecure Blood Transfusion	1	1%
		c. From Parents	9	9%
Total			100	100%

When the respondents were asked how HIV-AIDS transmits from one to other, 92%

respondents believed that through unsafe physical relation, 1% respondents believed

through insecure blood transfusion and 9% respondents talked about from parents HIV-

AIDS transmits from one to other exactly (Table 7).

Sl. No.	Question	Options	Frequency	Percentage
8	Do you have another infection/s?	a. Yes	83	83%
		b. No	17	17%
Total			100	100%

In Table 8, we can see that the respondents were asked “Do you have other infection/s?” In the reply 83% respondents told positive

about other infections and 17% respondents did not have other infections (Table 8).

Sl. No.	Question	Options	Frequency	Percentage
9	What other infections you have?	a. Skin Infection	15	15%
		b. Urinary tract Infection	20	20%
		c. Hepatitis B Surface Antigen	11	11%
		d. Hepatitis C Virus	2	2%
		e. Malnutrition	9	9%
		f. Tuberculosis	14	14%
		g. Anemia	13	13%
		h. Treponema Pallidum Haemagglutination	5	5%
		i. No Infection	11	11%
Total			100	100%

According to Table 9, 15% respondents were affected by Skin Infection, 20% respondents were affected by UTI, 11% respondents were affected by HBsAg, 2% respondents were affected by HCV, 9% respondents were affected by Malnutrition, 14% respondents were affected by TB, 13% respondents were affected by Anemia, 5% respondents were affected by TPHA and 11% respondents were affected by no infection at all (Table 9).

8. DISCUSSION

In this cross-sectional study, the percentage of male was 63% and the percentage of female was 37%. Among all the participants there were different respondents from different age groups. The distributed age groups. We found majority 49% respondents were in 33-47 years of age groups. 28% respondents were in 18-32 years of age groups. In this study the respondents were from different education levels. 55% respondents were up to primary education, only 2% respondents completed graduation. Among all the respondents there were people with different occupations. In this study we

found maximum respondents 36% were part-time worker, some of them 18% were housewives. The monthly family income of the respondents was also cross examined in this study. Among all of them 38% respondents replied that their monthly family income was <10,000 BDT and only 2% respondents talked about 31,000-40,000 BDT. The respondents were distributed in different living areas according to geographic status. According to their response 69% respondents were living in Flat land area. When the respondents were asked about the causative agent of AIDS, 63% respondents replied positive and remaining 37% respondents replied negative. The respondents were asked “How long you are being diagnosed as HIV positive?” Majority 47% respondents talked about 3 years+. Among all the respondents 49% respondents replied that HIV-AIDS is infectious and remaining 51% respondents told negative. Maximum 51% respondents said that HIV-AIDS is not infectious. When the respondents were asked how HIV-AIDS transmits from one to other, 92% respondents

believed that through unsafe physical relation. When asked “Do you have other infection/s?” In the reply maximum 83% respondents told positive about other infections and 17% respondents did not have other infections. When asked -What other co-infections you have? 20% respondents were affected by UTI, 15% respondents were affected by Skin Infection, 14% respondents were affected by TB, 11% respondents were affected by HBsAg, 9% respondents were affected by Malnutrition, 13% respondents were affected by Anemia, and 11% respondents were affected by no infection. Such kind of observation about the co infection rate of HIV patient, HCV were Co Infected with Hepatitis B Viruses 11.1% and (2.2%)HCV positive .Male gender predominance was observed (86%), (48 males And 8 Female) and the median age was 37 years (95%) range from 20-55years were found among 500HIV infected participants investigated in research’s done by (Co infection of hepatitis B and Hepatitis C virus in HIV infected patients in South India, October 2007,by Shanmugam Saravanan & Vijayakumar Velu). Co infection rate of HIV Patients with respect to TB/HIV infected of the 620 patients asked to participate in the study, 591(95%) accepted of whom 124(21%) were TB/HIV. Co infected twenty-nine participants refused to participate in the study of the co infected patients 61(49.2%) were smear negative, 42 (33.8%) smear positive and 21 (17%) extra pulmonary TB patients. Illiterates and males were more likely to have active TB. All HIV patients and 75% of the co infected patients were taking ART during the surely. This data found in Research (Tuberculosis and HIV co infection its impact on quality of life done by Amare Deribew Markos Testaye).

9. CONCLUSION

It was seen that the respondents of this study did not have knowledge on HIV/AIDS at satisfactory level. Still a portion of them is wrong and replied incorrect answers or did not know about different issues regarding HIV/AIDS though some of them were

replying satisfactory replies. It was also seen that the respondents of this study, different respondents talked about different infections as they have been suffering. It could be recommended that the respondents should know about HIV/AIDS more and should be aware more about transmission of HIV/AIDS.

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