

AIDS ‘Disease or Disaster’

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Abstract- The purpose of this research paper is to aware people and protect them from the HIV/AIDS to live peaceful and healthier life. In our interconnected global society, people frequently come together, forming connections and intimate relationships, predominantly between males and females. Unfortunately, this interaction has also facilitated the spread of a devastating disease: AIDS. HIV, the virus responsible for AIDS, is primarily transmitted through sexual contact from one person to another. This transmission occurs when infected bodily fluids, such as blood, semen, vaginal fluids, or breast milk, are exchanged during unprotected sexual activity.

In AIDS the virus HIV damage the immunity system of human by destroying the white blood cells. Basically HIV is transmitted when unprotected sexual contact, sharing needles, from mother to child during child birth, breastfeeding and through contaminated blood transfusion.

The cases of AIDS is increasing day by day throughout the world were youth became largely affected which became a global issue. As of the latest data, there are approximately 39.3% people living with AIDS globally. The most affected region is sub-saharan Africa, with nearly two-thirds of the global HIV population. India and Indonesia has also a number of people living with HIV.

The world health organization (WHO) provides guidelines for the treatment of HIV/AIDS. Antiretroviral Therapy, pre-exposure prophylaxis, prevention of mother to child transmission, Testing and diagnosis, Treatment and monitoring these are the recommendation given by WHO to improving the health of person living with HIV/AIDS.

The national AIDS control organization (NACO) estimated that 3.14 million people lived with HIV/AIDS in India in 2023. UNAIDS is working to ensure the people have access to HIV treatment, Harm reduction and protection to affected people. Founded in 1988, the international AIDS society is the world largest association of AIDS, with members from 170 countries. The sexual contact is not only reason for spreading AIDS recently it has seen that in India, Tripura 828 college students were reported HIV positive the number is quite surprising, these happen because of needle sharing or drug abuse with in the human. The affected people

increasing rapidly which became a serious issue to control.

The global world is trying to get cure researcher trying best to make the medicine as soon as possible but significant result yet not get. There is no cure from the disease only prevention can be measured. Antiretroviral therapy (ART) can treat and control infection person is with HIV. People who were under this medication can reduce the amount of virus in their bodies. They can live healthy lives and there is less chance to pass others.

The latest treatment is effective and largescale clinical trials conducted in Uganda and South Africa have demonstrated that a novel pre-exposure prophylaxis medication administered twice a year completely protects young women from HIV infections. The lanacapavir is injection which is given before affection of HIV/AIDS. These places chosen because women are mostly affected by HIV.

The initiative is taken earlier also but not effective now there need to protect youth from these affect so measure cause is spreading of these disease is unprotected sex, these are the responsibility of every individual to aware others and tell them to use protective measures.

In some religion the religious instruction given for not using contraceptive measure, in these category people have to be more concern while sexual contact among people especially youth.

Key Words- AIDS, Transmission, Immunity, protective, HIV, NACO, Infections, ART, Contaminated, PREP, Spreading, Disease, Contraceptive measures, Prevention, cases

1. INTRODUCTION

Acquired immune deficiency syndrome (AIDS) is a medical condition where immunity system is too weak to fight infections and human immunodeficiency virus (HIV) is a virus that attack cells that help the body in fighting infections. The first identified patient with HIV infections was a Scandinavian man in the 1960s, who has visited west-central Africa. The global expansion of disease began after 1975, it reaches up to tropical countries. The AIDS spread rapidly, particularly in sub-saharan Africa. by the mid -1990s, aids became the leading cause of death among adults.

After 2000s, progress in treatment and prevention, particularly with the antiretroviral therapy (ART) turns AIDS in to fatal disease to a manageable condition.

As of 2023, estimated that 38 million people are living with HIV in global world. The highest burden is in sub-saharan Africa, with 67% of total cases. There were approximately 1.5 million cases has registered in 2021. AIDS related deaths have reduced because of ART, with 650,000 deaths in 2021, compared to 1.9 million in 2004. HIV affects all age groups, mostly impact on young people. Women and girls, especially in sub- Saharan Africa largely affected.

Transmission – HIV is spread mainly by unprotected sexual contact, sharing needles, mother to child during childbirth, breastfeeding and trough vaginal fluid. Increased travel and migration became the reason for spread of HIV across the global world. Efforts to reduce transmission include safe sex practice, needle exchange programs, and mother to child transmission prevention program been started which reduce the death rates among people.

Social and economic factor- lack of education, limited availability of healthcare sector increase spreading of HIV. In many parts of world, access to ART is limited because of high cost. Community avoids people those who are infected by HIV these became reason people are not able to come for treatment of AIDS.

India has a significant number of people living with HIV/AIDS. The data shows that India has one of the largest population of people living with HIV/AIDS. The HIV/AIDS is not spread across the nation. States such as Maharashtra, Andhra Pradesh, Karnataka, Tamil Nadu and Telangana have higher prevalence compared to others.

The mode of transmission in India through unprotected sexual contact accounting for about 85% of cases. Other modes include mother to child transmission, contaminated blood transfusion, and injecting drug abuse.

The Indian government has implemented several Initiative to resolve the spreading of HIV/AIDS, Including the National Aids Control Programme. This program works in prevention, care, support and treatment for those living with HIV/AIDS. Awareness and education among people to reduce stigma associated with HIV/AIDS. through education campaign and community outreach programs. The ART is provided free to people living with HIV/AIDS,

which has significantly improved the life expectancy and quality of living.

In India Tripura has seen a increase in HIV/AIDS cases, especially among students, with 828 tested positive for HIV and 47 death has been recorded. The Tripura state AIDS control society (TSACS) said number significantly increase because of injectable drug use in which youth and students are particularly affected. The National AIDS control Programme has implemented measure to resolve this, including free Antiretrovial Treatment (ART) , awareness programme, preventive measures and precaution for unprotected sexual contact among people throughout state.

While comparison between India and USA, in 2021, India has 2.1 million people living with HIV but prevalence rate is relatively low compared to the population size, around 0.22%. In USA, 1.2 million people living with HIV but the prevalence rate is higher 0.36%, reflecting a higher per capita.

The Indian government provides free antiretroviral treatment (ART) as in 2021, about 1.5 million people were on ART. However, access to treatment varies in different states and regions. USA has the robust healthcare with widespread access to ART through insurance and other HIV program. Mortality rates as we saw death rates has been declined due to improved access to ART in India and also in USA death rates declined due to effective ART.

The National AIDS Control Programme (NACP) working on prevention, care and support. Efforts made including awareness campaigns, condom distribution, access to ART. In India funding for HIV/AIDS comes from government sides and international sources like global funds and other organizations.

1.1. Initiative taken by (WHO) in preventing HIV/AIDS

Working on achieving health coverage for HIV prevention, Testing, Treatment, and care. Sets targets to reduce infections, increase access to antiretroviral therapy (ART) and reduce the death rates. Promotes a combination of biomedical, behavioral, and structural interventions to combat disease. Includes strategies by adding condom promotion, pre-exposure prophylaxis, harm reduction for people who injects drugs. Encourages use of pre-exposure prophylaxis (prep) among the people.

1.2. HIV testing services- WHO promotes to increase access to HIV testing, including community based testing, self- testing. Aims to ensure that people are diagnosed early and taking preventive measures. Ensuring people living with HIV have access to ART, which helps control the virus, improve health and reduce the transmission among peoples. Intregating HIV services to other health services to increase efficiency.

1.3. Comprehensive care- WHO providing care which includes not only medical treatment but also mental health support, nutritional support, and social services.

1.4. Community support- engaging community to provide supports to people and reduce stigma. Legal and policy framework-making laws and policies that protects the rights of people living with HIV.

2. METHIDODOLOGY

2.1. Preventing disease through various approach – Widespread vaccination efforts can helpful in achieving immunity and reducing the spread of HIV.

2.2. Public health campaign- Education and awareness campaign informs people about prevention methods and HIV transmission, comprehensive sex education, precoustion during sex, is mostly included. Consistent and correct use of condoms, Reducing the number of sexual partners, Pre-exposure prophylaxis (prep) – medication for person at high risk of HIV to reduce the infection. Regular HIV testing for early defection, early initiation of Antiretroviral Therapy (ART) for HIV positive.

2.3. Mother-to-child Transmission prevention- HIV testing and treatment for pregnant women. Safe delivery practice, avoid breastfeeding. HIV positive pregnant women should take antiretroviral therapy which reduce the risk of transmitting disease to child. Providing clean needles to people who inject drugs and try to use non injectable forms of drugs.

2.4. HIV positive individuals taking antiretroviral therapy (ART)- to follow detachable contact with others which reduce the risk of transmission to others. participations in clinical trials for preventive measures and treatment for HIV.

2.5. HIV transmission- can occur through sexual intercourse, blood transmission from infected person or mother to child during birth. Several factors increase the transmission rate while understanding these factors is crucial for developing effective HIV prevention programs.

3. CLINICAL SIGNIFICANCE

Methods like male and female condoms and dental dams are effective in reducing HIV transmission. Male condoms are particularly effective, reducing HIV danger by 80% if used consistently. Condoms reduce HIV transmission by 70% among couples. Hence, Health organizations is campaigning for sex education and properly use of condoms.

3.1. PREP efficiency- Use of oral prep can lower the risk of HIV transmission by 92%. Inconsistent use significantly reduces its effectiveness. Prep should be offered to sexually active adults, people who inject drugs, and those with a substance use disorder.

4. OBJECTIVE

The objective of HIV/AIDS lies in research, treatment, and prevention efforts.

4.1. Preventing transmission-Education and awareness-implementing educational campaigns to inform the public about HIV transmission and preventive methods. Safe practice with promoting the use of condoms, safe needle practices. Encouraging regular HIV testing, Pre-Exposure Prophylaxis (PREP) offering prep medication to high-risk individuals to prevent HIV infection.

4.2. Providing Treatment-Antiretroviral Therapy (ART) reduce HIV-positive individuals, which helps to manage the disease and prevents the spreading of HIV. Adherence support Ensuring patients adhere to their medication regimen through education, supports, addressing side effects.

4.3. Healthcare access- improving access to healthcare services for all individuals. Supporting patients with medical care that includes monitoring both HIV-related issues.

4.4. Advancing Research- conducting studies to understand the virus behavior, transmission, and resistance mechanisms. Researching and developing antiretroviral drugs and treatment strategies.

4.5. Mental Health Services- offering psychological support to help individuals cope with the emotional and mental health impacts of living with HIV/AIDS. Reducing stigma campaign to educate the people and reduce misconceptions about HIV/AIDS.

4.6. Legal protections- Advocating for legal protections against the public places, health care and other areas. Encouraging community involvement and support for those affected by HIV/AIDS.

4.7. Monitoring and Evaluating- Data collection on infection rates, assessing the impact of public health programs and making adjustment on the basis of that and collaborating with international organization to share information, resources, and strategies to combat challenges in global world.

5. CONCLUSION

HIV/AIDS remains a critical global health issue, significantly impacting populations, especially in sub-Saharan Africa, India, and Indonesia. Despite advancements in treatment, such as Antiretroviral Therapy (ART), and preventive measures, including pre-exposure prophylaxis (PREP), the disease continues to spread, particularly among youth and vulnerable groups. The World Health Organization (WHO) and organizations like UNAIDS and the National AIDS Control Organization (NACO) have been pivotal in providing guidelines and support to combat the epidemic.

Key factors contributing to the spread of HIV/AIDS include unprotected sexual contact, needle sharing, mother-to-child transmission, and contaminated blood transfusions. Addressing these factors through education, safe sex practices, needle exchange programs, and comprehensive healthcare access is crucial.

Efforts to reduce HIV/AIDS transmission involve a multifaceted approach: promoting safe practices, enhancing education and awareness, ensuring early diagnosis and treatment, and supporting affected individuals through mental health services and legal

protections. Effective public health campaigns, consistent use of condoms, and regular HIV testing are essential components in preventing new infections.

The global fight against HIV/AIDS also requires continued research, improved healthcare access, and robust community support to reduce stigma and ensure better quality of life for those living with the disease. While there is no cure yet, the combined efforts of international organizations, governments, and communities provide hope for managing and ultimately reducing the impact of HIV/AIDS in global world and giving a peaceful and healthier life to every individual.

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