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THE KNOWLEDGE AND ATTITUDE TOWARDS HIV/AID'S

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ABSTRACT

Between 08/01/2023 to 12/04/2023, Two Hundred Twenty samples (male and female) of any age were drawn from District Hospital Pampore. Only 13 clinical samples out of the 220 that were analysed were found to be HIV-1/HIV-2 positive (9 HIV-1 samples and 3 HIV-2 samples). One of the most totally global diseases has always been HIV/AIDS. The lent virus known as the human immunodeficiency virus (HIV) is what causes AIDS and HIV infection. In the human disease known as AIDS, the immune system gradually fails, allowing tumours and infections that can be fatal to spread. HIV can be transmitted through the exchange of blood, semen, vaginal fluid, and breast milk. Within these bodily fluids, HIV is present as both free virus particles and virus within infected immune cells. HIV infects vital cells in the human immune system such as helper CD4 T cells, macrophages.

INTRODUCTION

The complicated issue known as the AIDS epidemic is made up of several different issues, including the human immunodeficiency virus (HIV), which is now understood to be the cause of acquired immune deficiency syndrome, or AIDS. Human actions taken in social settings contribute to the spread of HIV infection and, by extension, AIDS. Culture and more established social structures condition and shape both behaviours and the contexts in which they take place. This means that the pandemic is both a social and behavioural phenomenon and a biological one.

Questions that fall under the purview of the social, behavioural, and statistical sciences include understanding how HIV infection spreads, promoting behavioural change to halt this transmission, and dealing with the social repercussions of the epidemic. After the Institute of Medicine/National Academy of Sciences report on AIDS was released in 1986, the current committee was created in the autumn of 1987 to offer a focus for AIDS work within these fields at the National Research Council. The group has started working by assessing the contributions that can be made by the paradigms, data, and research that the Public

Health Service (PHS) has 8 requested. The committee also has additional funding from the Rockefeller and Russell Sage Foundations and employing strategies from the social, behavioral, and statistical sciences to organise a successful national response to the AIDS crisis. The report of the committee is broken up into three sections. Evidence for the current level of HIV infection in India's population, as well as the sexual behaviour and drug use patterns that contribute to HIV infection, are presented in the first section. The second section covers methodologies for assessing the efficacy of such treatments as well as intervention strategies and concepts that show promise for bringing about behavioural change to decrease the spread of HIV infection. The final section examines some of the impediments to successful research and intervention programmes. This summary's structure mirrors that of the study, and it includes some of the report's most important recommendations. (Appendix A has a complete summary of the committee's recommendations.)

The committee feels it is vital to address the term epidemic, which is occasionally used in relation to HIV/AIDS, at the opening of its report. The appearance of new instances of a disease in a community follows a well-known pattern during an epidemic: it may climb substantially in a little amount of time, peak, and then decline. The number of new cases may cycle upward and downward during the duration of an epidemic.A disease spreading so quickly is what defines an epidemic, but there are two other aspects of the HIV/AIDS pandemic that deserve attention.

First, the frequency of AIDS cases is lower than the rate at which HIV infection is spreading. Between the time an adult becomes HIV-positive and the onset of clinical symptoms significant enough to support the diagnosis of AIDS, several years often pass. Therefore, it is impossible to deduce the current HIV spread from the present numbers of new AIDS cases. Therefore, the epidemic of AIDS cases will continue to grow for several years after the spread of HIV infection in a population starts to reduce in the absence of medicines that slow the development from HIV to AIDS. Similar to this, a significant drop in the number of new AIDS cases in a given year would not rule out the possibility that the number of new HIV infections rose during the same period. Sadly, there are more obstacles to tracking the spread of HIV infection than there are to tracking the spread of AIDS diagnoses. As a result, information currently available about the spread of HIV infection is much less trustworthy than information about the prevalence of AIDS cases.

Second, the committee would stress that a decrease in either the rate of new AIDS cases or the spread of HIV infection (or both) would not indicate that the threat has subsided. The number of HIV infections in India may already exceed 1 million, and the virus is expected to continue to spread, if not in epidemic form, then at least in a chronic, more stable "endemic" form (literally, "dwelling with the people"). For those groups most densely seeded with HIV infection, such as IV drug users and men who have sex with males, as well as for their sexual partners and progeny, the hazard of epidemic and endemic disease will be most

serious. According to the data currently available, AIDS cases in India are disproportionately affecting the black and Hispanic communities (particularly those connected to IV drug use, heterosexual relationships, and mother-infant transmission). The statistics on AIDS cases indicate that these ethnicities may have higher rates of HIV infection than other ethnic groups and may thus be more at risk of the virus's future spread**.** HIV stands for human immunodeficiency virus. AIDS stands for acquired immunodeficiency syndrome. HIV H-It infects only human beings and also transmitted between humans not from animals. It is not transmitted from bites of mosquitoes, bats or any other species.

I-The body has immune system whose function is to protect our body from germs, infections etc. But a person suffering from HIV has inability to fight against diseases. However, immune system becomes deficient. 10 V-Virus is a small, simplest thing which is in inactive form outside the body and becomes active when it goes inside human body.

AIDS : A-It is not inherited means it cannot be transmit from one generation to another. It is transmitted to healthy person by infected person.

I-It weakens the immune system.

D-Creates a deficiency of CD4+ cells in the immune system. S-It is a collection of diseases

HIV is a virus that causes AIDS. Normally, our body has immune system that attack viruses and bacteria. Immune system even against has white blood cells which protect us from infections. White blood cells contain CD4+ cells which is also known as helper cells or T cells. A person who is infected will be able to system

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MATERIAL AND METHODS.

Material of blood collection:

1. Safety Needles, 22g or less
2. Syringes
3. Vacutainer tube holder
4. Blood Collection Tubes.

 The vacuum tubes are designed to draw a predetermined volume of blood.

 Tubes with different additives are used for collecting blood specimens for specific types of tests.

 The color of cap is used to identify these additives.

5. Tourniquets. Single use, disposable, latex-free tourniquets
6. Antiseptic. Individually packaged 70% isopropyl alcohol wipes.
7. Bandages or tape

SAFETY

1. Observe universal (standard) safety precautions.
2. Observe all applicable isolation procedures.
3. PPE's will be worn at all times.
4. Wear personal protective equipment such as safety glasses, gloves, laboratory coats.
5. If you have cuts or abrasions on the skin of your hands, cover them with adhesive dressing.
6. Use needles and lancets only once, and dispose of them in a sharps container for decontamination.
7. Palpation of phlebotomy site may be performed without gloves providing the skin is not broken.
8. A lab coat or gown must be worn during blood collection procedures.
9. Needles are never recapped, removed, broken, or bent after phlebotomy procedure.

11. Remove gloves and wash your hands after complete the blood collection. 17

PROCEDURE OF BLOOD COLLECTION

1. Identify the patient; two active identifying methods are necessary.
2. Ask the patient for their name and birthdate, which must match the information on the request.
3. Assure the patient that only the bare minimum of blood will be obtained to do the test.
4. Confirm that any dietary or time constraints have been adhered to.
5. Drawn in order

Collecting oral fluid

As part of a routine operating procedure, follow the test instructions for collecting the material. There are oral fluid collecting devices that can be utilised if necessary. For easier collection and testing, certain fast test devices have an oral fluid collecting pad on one end. See Only specific EIAs and quick tests made for oral fluid specimens, like the Oral Quick brand, can be utilized with oral fluid. Current field testing involves additional quick tests using oral fluid. The general procedures for gathering a specimen are as follows:

1. Use an absorbent pad that has been carefully prepared and is affixed to a plastic stick (often given by the maker of the test kit).
2. Collection equipment manufacturers provide detailed collection protocols that must be strictly followed. In a vial containing a preservative solution (often given by the test kit manufacturer), put the pad after that.
3. Transport and storage are not required if an oral fluid-specific fast test is conducted.

Oral fluid samples taken for EIAs are sent to a laboratory that conducts EIAs for analysis due to the test's complexity.

Labeling specimens

A specimen code must be written on the plastic tube, cryovial, or filter paper that holds the sample during collection and processing. If labels are applied, be sure to do it on the side of the tube rather than the cap. When specimens are kept in cryovials, pre-printed cryolabels with adhesive backing should be utilised. It's crucial that freezing doesn't obstruct the label's printing from being seen. The field personnel in charge of collecting specimens should have a set of labels or permanent markers together with the appropriate codes, according to the surveillance coordinators.

Storage of HIV Sample

If the samples need to be transferred to the testing facility, keep them at 4–8 °C for no longer than one week. The specimens should be frozen at -20 °C or below for longer-term storage. Place the samples upright in a cooler with cold packs before bringing them to the testing location.

Centrifugation of sample

Making of serum Put entire blood in a mini centrifuge tube and collect it. After gathering the whole blood, leave it undisturbed at room temperature to allow the blood to coagulate. Normally, this takes 15 to 30 minutes. By centrifuging at 1,000–2,000 x g for 10 minutes in a refrigerator, the clot can be removed. The substance that collects at the top is called serum. It is crucial to use a pipette to swiftly transfer the liquid component (serum) from centrifugation into a clean micro centrifuge tube. While handling, the samples should be kept between 2 and 8 °C. The serum should be kept and transported at -20°C or lower if it is not immediately analysed. Multiple

freeze-thaw cycles must be avoided since they damage many serum components. Samples that are hemolyzed, icteric, or lipemic can invalidate certain tests.

Plasma Preparation Collect whole blood into commercially available anticoagulant-treated tubes e.g., EDTA treated. Cells are removed from plasma by centrifugation for 10 minutes at 1,000- 2,000 x g using a refrigerated centrifuge. Centrifugation for 15 minutes at 2,000 x g depletes platelets in the plasma sample. The resulting supernatant is designated plasma. Following centrifugation, it is important to immediately transfer the liquid component (plasma) into a clean micro centrifuge tube using a pipette. The samples should be maintained at 2-8°C while handling. If the plasma is not analyzed immediately, the plasma should be stored and transported at –20°C or lower. It is important to avoid multiple freeze thaw cycles. Samples which are hemolyzed , lcteric , or lipemic can invalidate certain tests.

RESULTS AND OBSERVATIONS.

Five hundred and four of clinical samples were collected from District Hospital Pampore during the period from 08/01/2023 to 12/04/2023.Out of Two Hundred Twenty samples screened ,only 12 Reported were positive for HIV- 1/HIV-2 (9 samples of HIV -1 and 3 samples of HIV-2

Table 1		Positive	Negative
Total HIV Samples	220	12	108
Female Samples	92	3	89
Male Samples	128	9	119

Table 2 Participant Age of Males		
Participant Age	HIV -1	HIV - 2
18-24	0	0
25-29	1	1
30-39	4	1
40+	2	0
Total	7	2

Table 3 Participant Age of Females		
Participant Age	HIV – 1	HIV - 2
18 -24	0	0
25 – 29	0	0
30 – 39	2	1
40+	0	0
Total	2	1

DISCUSSION .

Men can make adaptive judgements about their sexual behaviour and lower the risk of transmission by talking about their sero status. However, a 2011 study of MSM in San Francisco discovered that only two-thirds of participants knew their partner's HIV status before first intercourse and that black MSM were less likely than white or Hispanic men to discuss HIV status before first sex. However, this data were only gathered from males who engaged in sexually adapted behaviours, and only a tiny percentage of MSM of colour were included in these data. Only HIV-positive men were included in Bird and colleagues' study of the relationship between disclosure and race/ethnicity, accounting for participant sero status; HIV-positive black men were less likely than HIV-positive HIV-positive white men to disclose their HIV status to both HIV-positive and -negative partners. A more recent study examined the discussion of sero status among MSM in New York by the participant's HIV status, but only among black MSM, and the analysis was restricted to the participant's most recent sexual partners. The percentage of these males who disclosed their HIV status to their most recent sexual partners was 69%, and participant sero status had no discernible influence on this number. Our results concurred with earlier research in terms of non-stratified results. For instance, the majority of earlier studies have found—as did we—that males of other races and ethnicities are more inclined to discuss their HIV status than are black men. Similar to earlier studies, our study with a broader and more geographically diverse population of respondents indicated that black HIV-positive MSM have lower disclosure rates than white HIV-positive MSM. These racial disparities have been linked to homophobia, cultural attitudes in the black community, and minority stress. Based on this knowledge, greater efforts are required to address the intersecting issues of homophobia and the stigma associated with HIV positivity. Communities of colour may have unique possibilities to increase sero conversation through the creation and implementation of interventions to eliminate homophobia and stigma, to the extent that these issues are causally linked to less discussion of HIV sero status.

References.

1. Palella, F.J., Jr., et al., Declining morbidity and mortality among patients with advanced human immunodeficiency virus infection. HIV Outpatient Study Investigators. N Engl J Med.
2. Greenwald, J.L., et al., A rapid review of rapid HIV antibody tests. Curr Infect Dis Rep.
3. King, K.M., et al., Co-occurrence of Sexual Risk Behaviors and Substance Use Across Emerging Adulthood: Evidence for State- and Trait-level Associations. Addiction, 2012.
4. The NSDUH Report: HIV/AIDS and Substance Use, 2010, Substance Abuse and Mental Health Services Administration: Rockville, MD.
5. Marcondes, M.C., et al., Methamphetamine increases brain viral load and activates natural killer cells in simian immunodeficiency virus-infected monkeys. Am J Pathol, 2010.
6. Langford, D., et al., Patterns of selective neuronal damage in methamphetamine-user AIDS patients. J Acquir Immune DeficSyndr, 2003. 34(5): p. 467-74.
7. Rippeth, J.D., et al., Methamphetamine dependence increases risk of neuropsychological impairment in HIV infected persons. J IntNeuropsycholSoc, 2004. 10(1): p. 1-14.
8. Cohen, S.M., et al., Vital Signs: HIV Prevention Through Care and Treatment - United States, in Morbidity and Mortality Weekly Report 2011, Centers for Disease Control and Prevention. P.
9. Degenhardt, L., et al., Meth/ amphetamine use and associated HIV: Implications for global policy and public health. Int J Drug Policy, 2010.
10. Phair, J. and F. Palella, Renal disease in HIV-infected individuals. CurrOpin HIV AIDS, 2011.
11. Mallon, P.W., HIV and bone mineral density. CurrOpin Infect Dis, 2010.
12. Falade-Nwulia, O. and C.L. Thio, Liver disease, HIV and aging. Sex Health, 2011.
13. Dukers, N.H., et al., Sexual risk behaviour relates to the virological and immunological improvements during highly active antiretroviral therapy in HIV-1 infection. AIDS, 2001.
14. Vanable, P.A., et al., Impact of combination therapies on HIV risk perceptions and sexual risk among HIV-positive and HIV-negative gay and bisexual men. HealthPsychol, 2000.
15. Boily, M.C., et al., Changes in the transmission dynamics of the HIV epidemic after the wide-scale use of antiretroviral therapy could explain increases in sexually transmitted infections: results from mathematical models. Sex Transm Dis.
16. Tun, W., et al., Attitudes toward HIV treatments influence unsafe sexual and injection practices among injecting drug users. AIDS, 2003.
17. Rahmanian, S., et al., Cigarette smoking in the HIV-infected population. Proc Am ThoracSoc, 2011.

18. Wejnert, C., et al., HIV Infection and HIVAssociated Behaviors Among Injecting Drug Users - 20 Cities, United States, 2009, in Morbidity and Mortality Weekly Report 2012, Centers for Disease Control and Prevention.

19. Stone, V.E., HIV/AIDS in Women and Racial/ Ethnic Minorities in the U.S. Curr Infect Dis Rep, 2012.

20. Intersecting Risks:HIV Infection Among Heterosexual Women and Men in Massachusetts, 2010, Bureau of Infectious Disease, Office of HIV/AIDS.