

HIV Occurrence and Risk Factors among Discordant Couples in Puducherry: A Preliminary Study

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Abstract: *This study tries to understand the present status of the discordant couples registered with the ART Centre, Pondicherry. HIV infection being a major health challenge in our country, it is important to understand the risk factors and other challenges the discordant couples face. The study reveals that majority of the respondents did not face any discrimination from their family members or from their spouse. The HIV status has not affected their social or family life. This seems to be the major achievements of the HIV management activities in India. This provides them a confidence in disclosing their HIV status to the spouse, family members, and the public. However, they are reluctant initially to disclose the status; they start with the spouse. The respondents are also concerned about their health and they are keen in taking the ART medicines as well as ensure the intake of nutritious food. However, the worry about opportunistic infection is a concern for them. At time, these infections prevent them from doing their routine activities. All the respondents practice safe sex, by using proper and consistent use of condoms. This helps them to remain discordant. All the respondents suggested that disclosure of HIV status to the spouse, use of condom in every sexual encounter, behaviour modification, positive support, complete trust, acceptance, understanding from the spouse and family members and the strong desire to keep the negative status of the spouse prevent the HIV transmission to the discordant spouse.*

Keywords: ART, CD4, HIV, PLHIV, Serodiscordant,

I. Introduction

The UNAIDS 'Face Sheet 2016 notify that as per the Global Statistics 2015; there were 36.7 million [34.0 million – 39.8 million] people globally living with HIV. 17 million people were accessing to antiretroviral therapy. 2.1 million [1.8 million – 2.4 million] people became newly infected with HIV. 1.1 million [940 000-1.3 million] people died from AIDS related illnesses. 78 million [69.5 million – 87.6 million] people have become infected with HIV since the start of the epidemic. 35 million [29.6 million -40.8 million] people have died from AIDS -related illnesses since the start of the epidemic. India has the third highest number of people living with HIV in the world. 2.1 million Indians accounting for about four out of 10 people infected with the deadly virus in the Asia – Pacific region according to UN report.

India has been concerned with HIV/AIDS issue ever since the first case of HIV/AIDS was detected in Chennai in 1986. The Ministry of Health & Family Welfare, Government of India has been taking initiatives in managing the epidemic through various policy decisions as well as programs. National AIDS Control Organization (NACO) has been established under the Ministry in order to plan and implement various programs aiming to halt and reverse the epidemic.

It is estimated that in India, we have 21, 16,581 people infected with HIV in 2015 (NACO Technical Data). There has been a decrease in new HIV/AIDS cases in Puducherry in 2013. According to Pondicherry AIDS Control Society (PACS) the percentage of new infections has come down below one per cent that year. In 2014-2015, in the Union Territory of Puducherry including Mahe, Yanam and Karaikal, the total number of persons living with HIV estimated as 1050; and in the district of Puducherry alone the estimated number is accounted as 1023 (97.4 per cent).

HIV/AIDS continues to be a significant global health problem. HIV serodiscordant couples represent at least half of all HIV-affected couples worldwide. Serodiscordance, in which one person in a couple is HIV-infected and the other person is HIV-uninfected, is a common phenomenon. In the United States, 52% of HIV-infected women in a national probability study reported being in a serodiscordant partnership while 47% of HIV-infected women in sub-Saharan Africa are in stable serodiscordant relationships. The high prevalence of HIV discordance and the high rates of HIV transmission within discordant couples make them a potentially suitable population for clinical trials evaluating preventive vaccines, microbicides, pre-exposure prophylaxis and other HIV prevention interventions.

In a serodiscordant couple the provision of ART to the positive partner can significantly decrease the risk of transmission to the negative partner, or, potentially, the provision of antiretrovirals (ARVs) to the negative partner - termed pre-exposure prophylaxis (PrEP) — can help to prevent HIV acquisition. Another potential benefit of couples testing together and sharing their results is that they can support each other, if one or both partners are HIV-positive, to access and adhere to ART and interventions to prevent mother-to-child transmission (PMTCT) of HIV.

An increasing focus of HIV preventive strategies has been to move away from solely reducing the risk-taking behaviours of HIV-uninfected individuals to focusing on HIV-infected individuals who may continue to practice HIV risk-taking behaviours. Studies from the developed and developing world have documented that a sizeable number of HIV-infected individuals continue to engage in unprotected sexual intercourse with HIV-serodiscordant partners. Unprotected intercourse may be more common among HIV-infected individuals in steady or regular relationships than in casual or non-regular sexual encounters. In traditional societies, the use of preventive measures by HIV-uninfected partners may be further hampered by social stigma, reproductive issues and gender inequality.

The Study:

In order to understand the status of serodiscordant couples registered with the ART Centre, Pondicherry, I have undertaken a study. In this rapid assessment, ten respondents were selected and a semi-structured, open-ended schedule was administrated. The details of the analysis are given below.

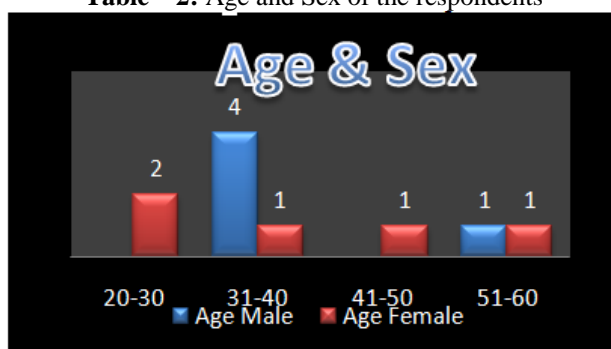
Basic Information

Table – 1: AgeCompositionof the respondents

Age	Frequency	Percentage
20-30	2	20%
31-40	5	50%
41-50	1	10%
51-60	2	20%
Total	10	100

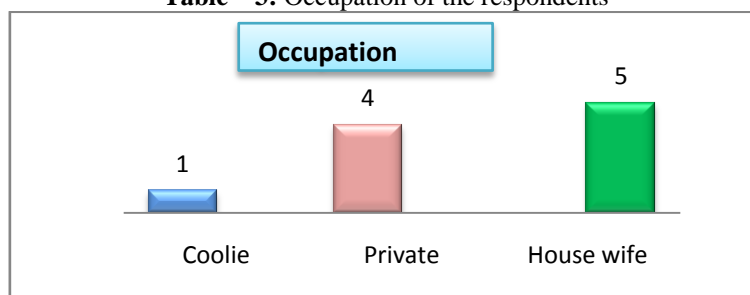
The above data revealed that 50% of the couple belonged between the age group of 31-40 years. Among this age group majority of them were male who was HIV infected.

Table – 2: Age and Sex of the respondents



Participants were selected equally 5 HIV infected women and 5 HIV infected men in order to have a fair opinion regarding the risk factors and challenges faced and the measures adopted by the discordant couples to remain discordant.

Table – 3: Occupation of the respondents

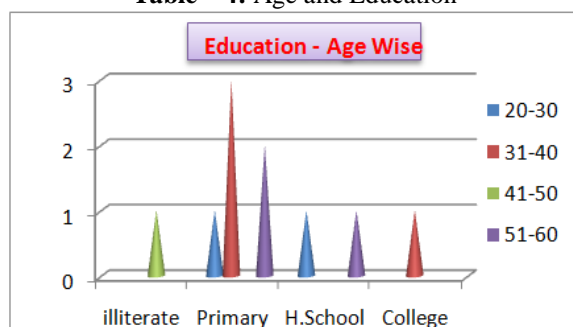


The socio-economic status of the family can be assured by the occupation of the family members. Occupation can influence the individual's life differently. The data showed that women 100% remained as house wives and majority 80% of men were occupied with their own private earnings through petty shop, rickshaw pulling, and livestock management. The remaining 20% one person works as watchman and the other went for coolie work.

Education:

Education is a basic need for leading a worthy human life. With minimum education one can only be satisfied with unskilled labour and lower level of occupation.

Table – 4: Age and Education



The above data reveal that out of the 10 respondents 5 (50%) of them had only primary education. 30% of them completed 10th standard and one person did ITI and DT Ed. and one was illiterate.

Family Details:

Children: Majority 60% of the couples had 2 children 20% had one child among the data one couple 10% had HIV+ve child and other 10% one couple had no children.

Economic Status

Table – 5: Monthly Income of the Family

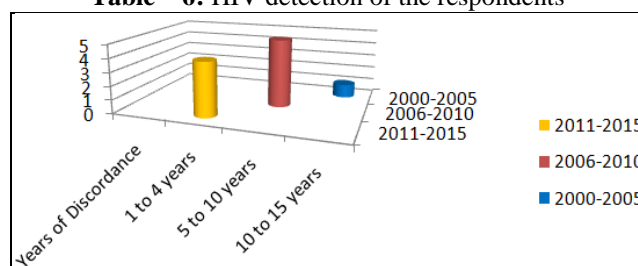
Income	Frequency	Percentage
5000 -10000	7	70%
11000 - 20000	3	30%
Total	10	100

The above table showed that 70% of the respondents had monthly income between Rs. 5000 to 10000, earned from their own private occupation such as watch man, small business, petty shops, rickshaw pulling and daily wages; the remaining 30% had income between Rs.10, 000 to 20,000 who had livestock and other family members also contributed to the income. 70% of the respondent lived in rented house. Only 3 (30%) owned their own house. It could be rightly deduced that a major portion of the respondents come under the category of lower income families.

II. Health & Treatment

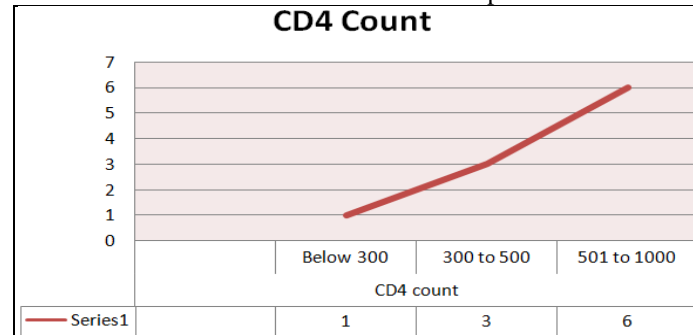
The respondents remain healthy in spite of the HIV infection. They had normal weight and majority of them were not attacked by opportunistic infection. The study showed that 50% of the respondent had a weight between 50 – 60 kg. Other 30% came between 40 -50 kg and one respondent below 40 kg and one above 60 kg. 70% of the respondents did not have any opportunistic infection. The other 20% had skin rashes and they are on treatment and one person was attacked by TB and completed the treatment.

Table – 6: HIV detection of the respondents



The above figure indicate that 50% of the respondents were found HIV positive between the year 2006 and 2010 and they remain discordant for more than 5 to 10 years. Other 40 % remain as discordant for the past 1 to 4 years. One couple remain as discordant for the past 15 years. All the respondents are on ART and are took the medicine on a regular basis, visited ART centre continuously, did CD4 test every six months and their negative spouse did their normal follow up HIV test every six months. It reveals that along with safe sex method with mutual support, regular follow up and continuous intake of ART sustained the couple to remain discordant for many years.

Table – 7: CD4 count of the respondent



The above chart indicates the respondent’s level of CD4 count. Out of 10 respondents 6 of them (60 per cent) had CD4 between 501 – 1000. The rest 3 of them (30per cent) had CD4 above 300-500 and only one person had CD4 below 300. The respondents 100% had done their CD4 test within the last six months.

CD4- Immune function is typically measured by CD4 cell count. As the virus destroys and impairs the function of immune cells, infected individuals gradually become immune deficient.

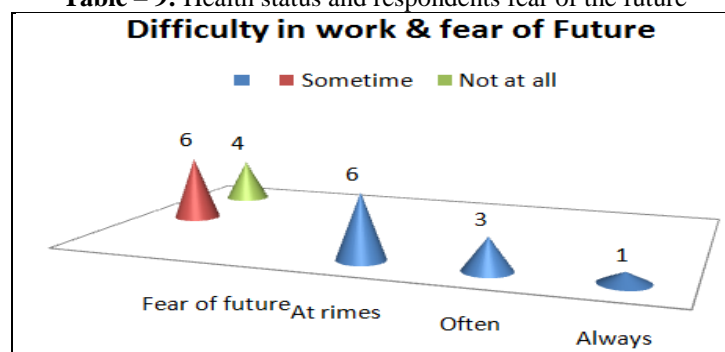
Social life of the Respondent

Table – 8: Illness and social life

Illness &social life	Frequency	Percentage
Not at all	5	50%
Sometimes	3	30%
Always	2	20%
Total	10	100

In the study 50% of the respondent said that the illness had not affected their social life with family, friends, or any social gathering. 30% of the respondent said that they felt insecurityin social gatherings and sometimes they excusedthemselves to go for any function.The remaining 20% said that the illness almost affected them totally and felt very insecure during functions and gatherings and they always avoided common functions.

Table – 9: Health status and respondents fear of the future

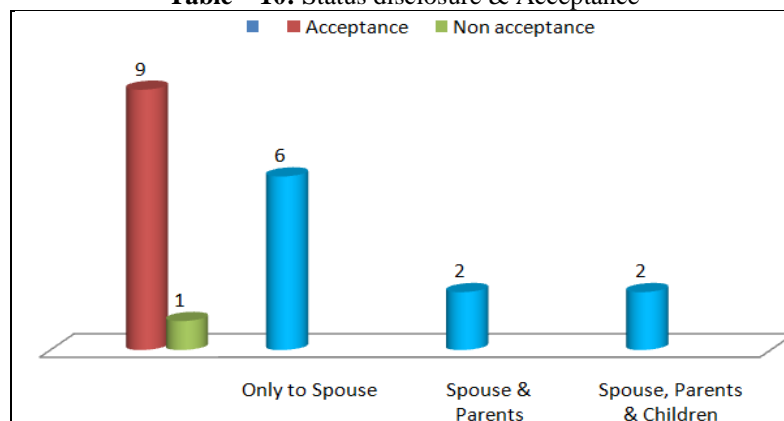


The given figure shows that 60% of the couples had some difficulties to do their daily house hold chores and occupation smoothly due to illness and other 40% said that the illness did not interfere with any of their work. It also revealed that 6(60%) of them were at times worried about their illness and they were fearful toward the future and 3 (30%) of them were often bothered about their health status and 1(10%) always had a fear and worry about their illness and future life.

Social Status & Disclosure

Disclosure is a critical issue for newly diagnosed PLHIV. Disclosing to family, friends or a steady sexual partner can bring social support to the PLHIV, which may in turn have positive effects on psychological well-being. Within a couple, disclosing entails the possibility to negotiate about safer sex practices, in particular condom use, earlier testing of the sexual partner. Disclosure can be risky for PLHIV in case of negative reactions. Family exclusion of the PLHIV may follow disclosure and is in some cases associated with emotional and/or physical violence. The risk of stigmatization and discrimination is still very strong, and can have devastating consequences on the familial, social and economic lives of PLHIV. The anticipation of negative consequences is the main barrier cited by PLHIV for non-disclosure, as they are afraid of discrimination and stigmatization, or of a negative reaction of the partner leading to rejection, abandonment, break-up or violence.

Table – 10: Status disclosure & Acceptance



The above figure indicate that 6 (60%) of the respondents had disclosed their HIV status only to their spouse. 2(20%) of them revealed their status both to the parents and spouse. Another 2 (20%) disclosed their status to parents children and spouse. 90% of the respondents showed that their spouse and family members accepted them totally and 1 respondent (10%) was abandon by the husband.

One woman painfully shared that after disclosing her status to the spouse he refused to accept her and began to ill treat her. He refused even to do the HIV test and after some time he left her and went. Now she and her two sons live in her mother's house. She said that her family and her sons accept her and looks after her.

Discrimination: out of the 10 discordant couple 8 of them 80% the vast majority had not faced discrimination either in the family or society. 20% respondents faced discrimination by their family.

One of the couple said that they are two brothers and he is the youngest in the family. They had prawn cultivation and had good earnings from it. After knowing his HIV status the family refused to give the share of his property. He spent much time and money with local leaders to get his share but all his effort was in vain. Later with the support and help of Vihaan CSC, and the lawyer he was able to obtain his share of family property.

Positive living & Relationship

One of the difficulties with HIV-discordant couples is that the increased risk for infection comes from within stable relationship rather than from outside sexual partners. In the present study 7 (70%) HIV transmission among the respondents was through heterosexual ways. Other 2 (20%) was through blood transfusion and 1 (10%) through mother to child transmission. The heterosexual transmission of HIV involves the complex interaction of both biological and behavioural factors.

III. HIV Result & Preparedness

Almost all the respondent 10 (100%) felt very sad and depressed to know their HIV status. Though their spouses were prepared during the pre- and post HIV test counselling to accept the HIV status of their spouse 8(80%) of them said that even after preparation and counselling it was hard to accept. For the remaining 2(20%) it was very difficult to accept the status, even though they are aware of the ways of transmission. 90% of the family was very sad to know the status yet they accepted the respondents' status and give them support to cope up with the situation. Only 1 (10%) respondent was not accepted by the spouse (husband).

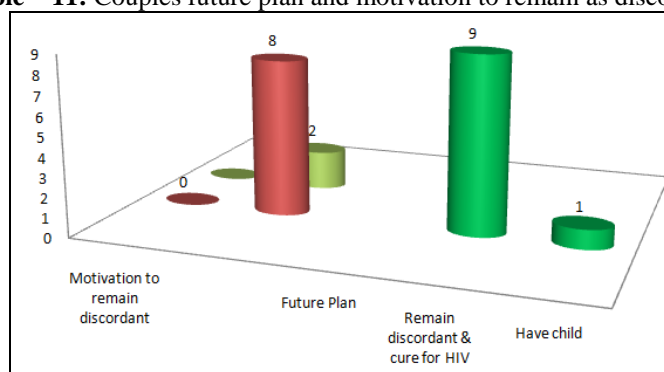
Risk reduction Methods, Sexual Contact & Frequency

Couples used different risk reduction strategies and some couples preferred to reduce their frequency of sex. Major portion 10(100%) of them remained with their spouse after knowing their status and the data revealed that nobody had sexual partner. All of the respondents have sexual intercourse with their spouse. 8(80%) of the respondent always use condom during sexual intercourse and the other 2(20%) said that sometimes they do not use condom while sex. 6(60%) of them have regular sex with their spouse and the remaining 4(40%) have sex only sometimes.

Two of the couples said that they communicate and plan together to live in happy relationship. During sex they relate very gently and avoid forceful ways so as to protect the status of negative spouse and to prevent HIV transmission. Regular follow up test, ART medication, healthy life style, (normal food intake, drink plenty of water, physical hygiene, some exercise, relaxation, enough sleep) behaviour modification (faithful to the spouse, avoidance of alcohol and other substance). These are the simple steps the respondents have adapted to keep the status.

Future Plan & Motivation to Remain Discordant

Table – 11: Couples future plan and motivation to remain as discordant



The above figure reports that 8 (80%) of the respondent said that their love towards their spouse and the desire to live together for long years keeps them remain discordant. The remaining 2 (20%) remain discordant for the sake of their children and for their well being. 9(90%) of couples desire to have vaccine & cure for HIV and remain as discordant and 1(10%) desire to have child.

Self Acceptance, Future dream and Coping mechanisms

Self acceptance of the couples, their dream of the future and present coping life mechanism reveal that their years of experience with the HIV status have motivated them to accept the illness and cop up with life positively. The data revealed that 70% of the respondents accepted themselves fully and the 30% accepted themselves only partially. 7(70%) of the couple adopted prayer and exercise as a method to cope up with the present life. 2(20%) of them spent time in watching television and the remaining 1(10%) began to help the poor persons especially children and spent time with them. 9(90%) of the respondent’s dream is to have vaccine & cure for HIV and live long life. The 1(10%) wants to have a child of their own or adopt a child for them.

Suggested Preventive Measures

The data showed that 8 (80%) of the respondent suggested that disclosure of HIV status to the spouse, use of condom every time having sex, behaviour modification, positive support, complete trust, acceptance, understanding from the spouse and family members and the strong desire to keep the negativestatus of the spouse prevent the HIV transmission to the discordant spouse. 1(10%) said that mutual communication, planning and sharing with each other, regular medication, regular check up and good support of each other can prevent HIV. The other 1(10%) said that minimum sexual contact, knowing the status of each other, caring and well being of the children and the spouse, positive outlook through prayer and exercise can be adopted as a method to prevent HIV transmission to the discordant spouse.

Total Support from the spouse: One of the respondent said that total acceptance, support, love and care from the spouse help her to cop up with the hard situations. There were times she felt to end her life; but her spouse always encouraged her to accept the status and live happily. He always accompanies her to the ARTC to get the ART medicine and he does the regular HIV test. She is very grateful to God for her husband and she feels lucky to be with him. She also finds spiritual strength and peace of mind in prayer and going to temple.

Support from GO & NGO: the government provides 100% ART medicine freely to the respondents thus they are able to take it regularly; if it was from private medicals they could have not afford to buy it and be alive till today; said the couples. Regular intake of ART is also a helpful to prevent HIV transmission. The NGO (Puthuvai Cluny Social Service Trust) Vihaan CSC give individual and couple counselling specially to the couples and organizes support group meetings for the discordant couples on a regular basis on various themes. Support group meetings and positive speaking really gives encouragement and support to live positively and happily; said the respondents

IV. Major Findings

In the present study 60 per cent of the respondents belonged between the age group of 25- 40 years. Majority of men were occupied with their own work as tailor, petty shop, rickshaw pulling etc and women remained as house wives. 50% of the respondents had only primary education belonged to lower and middle income families 70% of them lived in rented houses. It was found that 50% of the respondents remain as discordant for that past 5-10 years and other 40% are discordant for the past 1- 4 years.

Another major finding is that 100 per cent respondents visited ART centre on a regular basis and took ART (Antiretroviral Therapy) correctly and did CD4 test in every six months. Their counterpart did their follow up test regularly. 70% of the respondents did not have any opportunistic infection (OI). 30% had only minor skin rashes. All the respondents 100% had done their CD4 test within the last six months and 60% of them had CD4 between 501 – 1000 and 30% had CD4 above 300-500 and only one person had CD4 below 300. 50% of the respondent said that the illness did not affect their social life with family, friends, or any social gathering. Other 30% respondents said that they felt sometimes insecurity. 60% of the respondents said that sometimes they were worried about their illness and are fearful toward the future.

100% of the respondents had disclosed their HIV status to the spouse and 60% of the respondents showed that their spouse and family members accepted them totally. 80% the vast majority had not faced discrimination either in the family or society. 20% respondents faced discrimination in their family.

Among the respondents 70% HIV transmission was through heterosexual ways. Other 20% was through blood transfusion and 10% through mother to child transmission. 80% of the respondents use condom always. 90% of the respondents desire to remain as discordant. 80% of the respondent said that their love towards their spouse and the desire to live together for long years keeps them remain discordant. The remaining 20% remain discordant for the sake of their children and for their well being. 80% of the respondent revealed that they always use condom while having sexual contact. 100% of the respondents have sexual contact with their spouse and the data revealed that nobody had sexual partner. 50% of the respondent felt very sad and the other 50% was very depressed to know their HIV status. 80% of the spouses had very little preparation to accept the HIV status.

70% of the respondent adopted prayer and exercise as a method to cope up with the present life. 20% of them spent time in watching television and the remaining 10% began to help the poor persons and spent time with them. 70% of the respondents accepted themselves fully and the 30% accepted themselves partially. 90% of the respondent's future dream is to have vaccine & cure for HIV and have long life.

80% of the respondent suggested that disclosure of HIV status to the spouse, use of condom every time having sex and accepting and understanding each other can prevent the HIV transmission to the discordant spouse. 10% said that mutual communication and planning, regular medication, and regular check up and good support of each other can prevent HIV. The other 10% said that minimum sexual contact, knowing the status of each other, caring and well being of the children and the spouse, positive outlook through prayer and exercise can be adopted as a method to prevent HIV transmission to the discordant spouse. 100% of the respondents get total acceptance, support, love and care from family members and spouse.

The government provides 100% ART medicine freely to the respondents. The NGO organizes support group meetings, individual and couple counselling to encourage and support the PLHIV to live positively and happily. The respondent revealed that 'support group' and positive speaking programme strengthened their life.

V. Suggestions

In India where men are the primary decision makers about sexual behaviours in couples, it is important to incorporate HIV-infected men in prevention efforts. Male circumcision coupled with other safer methods of conception may decrease the risk of sexual HIV transmission. In the Indian culture people are reluctant to talk on sex, even sexual education and moral science sessions are discouraged to be taught in schools in this contest educating the couples may become a huge task. To reduce HIV transmission the couples could be motivated to have open discussion, sharing and communication regarding sex and sexual practices for better relationship and healthy prevention. The medical personnel and health care providers can play a better role in counseling the couples on the consistent use of condoms with all sexual encounters for preventing sexual transmission of HIV

to the uninfected partner. The government can strengthen the existing supportive systems such as ICTC, PPTCT, ART centres to provide adequate counselling support to the discordant couples to remain in the discordant state. The existing NGOs could organize frequent support group meetings and programs for the discordant couples on various themes to encourage them to stay constantly in discordance. Risk deduction methods and behaviour modification (no alcohol, no sustenance abuse, and no partner outside) practise can also help the couples to deduce HIV transmission. Use of condom in all sexual encounters and reducing frequency for sexual intercourse can prevent the chances of transmitting HIV infection. Through effective counselling couples can be motivated to disclose the status immediately to the spouse for choosing better ways to lead their life as discordant couple.

VI. Conclusion

The spouses of HIV-infected individuals comprise an important risk group in India. Heterosexual transmission of HIV among married couples is the commonest mode of transmission seen in India. As per the study it was found that direct and immediate HIV disclosure to the spouse, acceptance and support of the spouse, behaviour modification and safe sex practices, motivational counselling and support group programmes, regular ART intake and follow up HIV test of the uninfected spouse helped the couples to remain in the status of discordance.

Annex

Discordant Couples: The World Health Organisation (WHO) defines discordant couples are those where one partner is HIV-infected and the other is not, where a couple is defined as two persons in an ongoing sexual relationship and each of these persons are referred to as a “partner” in the relationship. “Couples who test together and mutually disclose their HIV status are more likely than those testing alone to adopt behaviour to protect their partner.

HIV: Human Immunodeficiency Virus (HIV)

AIDS: Acquired Immunodeficiency Syndrome (AIDS)

ART: Antiretroviral Therapy.

OI: opportunistic infection.

An opportunistic infection is an infection caused by pathogens (bacteria, viruses, fungi, or protozoa) that take advantage of an opportunity not normally available, such as a host with a weakened immune system.

ART Centre: ART centres are set by the government to provide comprehensive package of services to eligible persons with HIV/AIDS. Provide free ARV & OI drugs, laboratory services, HIV testing, CD count testing and counselling.

Vihaan CSC: Vihaan is a national initiative establishing and managing 350 Care & Support Centres (CSCs) across India to expand access to essential services, increase treatment adherence, reduce stigma and discrimination, and improve the quality of life of people living with HIV (PLHIV). The programme is designed as the care & support component of the country's HIV response under National AIDS Control Programme IV (NACP IV). CSCs serve as safe spaces for PLHIV offering services that include counselling, outreach and follow-up support, health referrals, and linkages to social welfare schemes.