

Developing a framework of practice for social workers in HIV/AIDS Management in India

Sangeeta Sharma Dhaor¹

Abstract: Antiretroviral therapy is the panacea to the management of the HIV infection, improving the longevity of the person (people) living with HIV (PLHIV) and reducing transmission. However, the socio-psycho-cultural factors and consequent behaviour that contribute to the spread of the virus still prevail, causing new infections. These factors are addressed by social workers who are a part of a multidisciplinary team and use transdisciplinary practise competencies. Evidence-based research establishes the need to develop theory and practice for social work students to address the spectrum of psycho-socio-cultural issues affecting PLHIV. Social workers require a roadmap to steer them in helping the PLHIV. The present paper develops a multistage multilevel framework of practice that addresses the challenges emerging at each stage of infection and treatment. It also suggests possible approaches that social workers may consider at each level of intervention ranging from intra-personal level to environmental and policy level. Based on the Indian context, the framework of practice in this article emerges from qualitative and quantitative findings of the research that was conducted to understand the factors impacting risk behaviour and ART adherence among PLHIV. The study found that issues are rooted at intrapersonal, interpersonal, institutional, policy, and environmental levels and influence the risk and treatment behaviour of PLHIV. Hence the researcher developed a framework to help social workers devise intervention plans for the PLHIV.

Keywords: HIV/AIDS prevention; multilevel framework; multistage framework; internalised stigma

1. Associate Professor, Dept of Social Work, Dr Bhim Rao Ambedkar College, University of Delhi

Address for correspondence: sangeeta.dhaor@bramb.du.ac.in

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Background

HIV is an ever-evolving pandemic, requiring a consistently evolving and dynamic practice framework. The pandemic requires an approach to address risk prevention and health promotion. The Recent data on HIV suggests that we cannot claim victory over the pandemic unless we control new infections. As of 2020, over 37.7 million people were living with HIV (PLHIV) globally, 68,000 had died of HIV, and 1.5 million new HIV infections were reported. The global antiretroviral therapy (ART) coverage rate was 73% (WHO, 2021). The latest country data in 2018 show that 15 countries met the viral suppression target among all PLHIV of 73%, including Australia, Botswana, Cambodia, Denmark, Eswatini, France, Germany, Iceland, Ireland, Namibia, Netherlands, Rwanda, Spain, Thailand and the United Kingdom. Among these, six countries reported as achieving the UNAIDS 90–90–90 (test-treat-viral suppression) prongs, including three countries (Botswana, Eswatini and Namibia) in Southern Africa (Kimberly, 2018, pp S216).

There has been unequal progress among countries in achieving 90-90-90 targets. However, countries that have achieved the 90/90/90 target are already now moving to 95/95/95, that is to diagnose 95% of PLHIV, provide antiretroviral therapy (ART) to 95% PLHIV diagnose, and achieve viral suppression for 95% PLHIV by 2025, for example, Eswatini (UNAIDS,2020). However, key population groups were high HIV+ rates remain, have a 13-30 times greater risk of acquiring the infection than the general population (UNAIDS Key Populations, 2022). We recognise that the epidemic thrives on inequalities; hence in the latest targets of 2025, there is a reasonable focus on addressing and managing adverse legal and socio-cultural environments that deter access to services (UNAIDS, 2020).

In India, social workers employed as counsellors at HIV prevention projects are the backbone of the HIV prevention program of the National AIDS Control Organisation (NACO). Although India is on track to success, its priority is to control new infections. Currently, HIV prevalence is 0.24% in males and 0.20% in females aged 15-49. In 2020, 2.36 million people lived with HIV in India; of them, 1.4 million were on ART. Nationally, 54, 000 new HIV infections were estimated in 2020 (UNAIDS, UNICEF, WHO, nd). As such, Baral et al. (2013) recommended working on primary and secondary prevention due to the dynamic character of the key population. Factors like migration, sexual orientation, commercial sex, lack of awareness, and contextual factors increase risk of HIV transmission

(Larios et al., 2009; Thomas et al., 2005; Eisele et al., 2009). The key population living with HIV in India is marginalised, socially ostracised, and stigmatised. Stigma impacts ART adherence (Madi et al., 2013; Ekstrand et al., 2018). The effect of stigma operates at intrapersonal, interpersonal, and structural levels (Katz et al., 2013). Hence, social workers need to work intensively with various population segments at multiple levels

ART reduces HIV transmission by 92% (Attia et al., 2009). Therefore, the World Health Organisation's (WHO) test and treat strategy aims to avert the pandemic by considering treatment as prevention (TasP). However, to meet the target of reducing new infections to below 500,000 by 2020 and 200,000 or less by the end of 2024 (UNAIDS 2017, UNAIDS 2020), ART may not be sufficient to end the pandemic without other prevention strategies (Dehne et al., 2016, p e323) (Bain et al., 2017).

India adopted TasP in April 2017. Mission Sampark (contact and tracing centre) was then launched in December 2017 to bring 'Loss to Follow Up' (LFU) persons back to the loop of care continuum to initiate ART. Here Sampark is a Hindi word meaning 'to contact'. Currently, 142 persons for every 1,000 persons are LFU. In addition, India has an information, education, and communication program for youth awareness. There are intersectoral linkages for facilitating HIV testing and ART initiation. Despite the protocol of spousal testing, the number of partner testing is low, arguably, indicating non-disclosure in intimate partner relationships. People diagnosed and put on ART range from 37% to 84%. This shows enormous disparity between diagnosis and treatment. Despite these concerns, we can see a downward trend in HIV prevalence in India (NACO, 2020). A national downward trend was 0.27% in 2012 to 0.22% in 2019. However, the National Capital Territory of Delhi showed an upward trend (from 0.20-0.27% in 2012 to 0.41% in 2019) (NACO, 2019, pp 47). Thus, this situation requires us to look critically at the prevention-detection-treatment continuum among PLHIV to enable us to develop a practice framework that can be useful in different regions of India.

The proposed framework in this paper is relevant to social workers and social work students, as it takes both the social environment and the individual into consideration. Social workers/students need to understand the challenges from intra- or inter-personal issues of marginalisation, risk behaviour, and disclosure. They may come from the immediate social circle, workplace, neighbourhood, or political-legal environment of PLHIV. This framework covers stages of the prevention-detection-treatment continuum, at many points, e.g a. risk, b. diagnosed, and c. receiving ART.

The framework will guide social workers (and students) in designing appropriate interventions for HIV positive individuals. As the spectrum of psycho-socio-cultural issues that affect the life cycle from HIV infection to ART adherence has multiple interjection points, the framework seeks to address those factors. It explains factors that affect prevention-detection-treatment and suggests multilevel interventions for various stages from infection, living with HIV, and end of life (as relevant). It encourages a greater consideration at psycho-socio-cultural factors that affect risk prevention, health promotion, and access to/management of treatment among PLHIV in India.

The framework emerges from a mixed-method research, field experience, lessons learned from my fieldwork as an HIV researcher and trainer. The framework should be seen as an intervention framework. It should be noted that research findings used in this paper are from the researchers fieldwork and shared only to help the readers develop a perspective about a PLHIV's life and associated problems. Research data and quotes are used to strengthen the basis of the framework.

Theoretical consideration

'Health literacy' improves health behaviour (Greyson and Johnson, 2016). The Theory of reasoned action (TRA) and theory of planned behaviour (TPB) assumes behaviour achievements depend on intention, behaviour control which can be in volitional control of the individual's actions (Montano and Kasprzyk, 2008). The trans-theoretical Model (TTM) proposes that people proceed through five phases or 'stages' to make intentional behaviour change (Prochaska and Velicer, 1997). These approaches hold a person living with an illness responsible for acquiring a disease and it not always helpful a helpful approach. In contrast, McLeroy et al (1988) developed a socio-ecological model for health promotion taking inspiration from Bronfenbrenner's systems model, where multiple factors contribute to health outcomes. Others consider the culture and context of a population affected by illness in designing communication strategies for health promotion arguing that this yields better results (Airhihenbuwa and Obregon (2000, p12).

We must consider the inequalities that cause risk of HIV infection and not simply blame the person infected or affected. Merely educating people

about risk and transmission without fully understanding inequalities emerging from political and structural factors may not address the problem. This paper therefore argues that, there is a growing need to understand behaviour and factors that impact health, rather than simply blaming the person infected. Health is an outcome of multiple factors. Working or intervening in an HIV with a holistic approach will improve the well-being of clients. Other scholars also identify strengths, coping skills and resilience against risk situations as important factors to consider when developing a health strategy of frameworks that help respond to health problems. (Bouis et al., 2007; Sogren et al., 2012; Wolf and Michle 2002). The framework that is presented in later sections of this paper will take a systematic approach and will draw on factors recommended by other scholars as helpful when developing strategies towards responding to public health issues.

Methodology

The researcher utilised mixed-methods research approaches to obtain information about the factors impacting PLHIV's risk and health behaviour as well as experiences of stigma. Quantitative and qualitative methodologies were used simultaneously (Creswell 2014, p269).

Research window

Data were collected and processed from April 2010 to February 2011 and gathered from B category districts of the National Capital Territory of Delhi, India. At the time of the research, the prevalence rate among the general population was 0.30%. At the national level, the HIV prevalence as per HIV Sentinel Surveillance (HSS 2010) was 2.61% among female sex workers, 5.01% among men having sex with men, 5.91% among injecting drug users, and 18.80% among the transgender population (World Bank 2012). Recruitment relied on sample provided by six Non-governmental Organisation and two care homes that offer services to people living with HIV.

Ethical considerations

The research protocol adhered to the 'Guidelines for Ethical Research involving Human Participants' developed by the Indian Council for Medical Research (ICMR 2006 p21). The protocol also complied with the Helsinki Guidelines for researching with human participants, published by World Medical Association (WMA 2018, pp 1-5). The researcher maintained confidentiality of the respondents and obtained informed consent before data collection. The respondents were told that denial of consent or withdrawing would not affect their relationship with the project or accessing future training given by the researcher in her trainer role. Before initiating the session, the researcher signed the declaration promising anonymity and to use the information only for research purposes. The researcher did not fix timeline for data usage; and the study was approved by the Board of Study (BOS) of Lucknow University, India in 2009.

Recruitment and sampling

The researcher reached out to HIV prevention projects working with MSM, female sex workers, and transgender women, and non-governmental organisations to help promote the research and assist with identifying potential participants. The researcher also recruited willing and consenting people from these setting as well as those admitted to care homes. The researcher was able to access people living with HIV in care homes easily because ART centres referred PLHIV requiring in-patient treatment to care homes.

Due to confidentiality, the study sample was mainly selected through snowballing technique, convenience sampling through referral, willingness and availability (Parker and Scott 2019). The majority of respondents were registered with HIV prevention projects and non-governmental organisations directly supporting the research although others accessed support elsewhere.

Quantitative research

The researcher collected quantitative data (the native language of the

respondents), using a survey containing closed-ended questions put together from a pre-designed semi structured interview schedule. To collect data, participants were met during a session that lasted for more than an hour, while some sessions extended beyond that. Doing this enabled the researcher to clarify their understanding of questions where needed. Participants shared information about: i) their demographic information; ii) sexual orientation and sexual risk behaviour; use of a condom, participation in commercial sex, alcohol use, and presence of STD; iii) knowledge of; modes of transmission of HIV and ART services iv) what emotion they felt after HIV diagnosis; v) the accessibility and availability of care, support, and ART services and ART adherence; vi) their efforts to prevent HIV transmission.

The researcher assessed the internalised stigma by i) disclosure status; ii) sharing of eatables and utensils; and iii) reporting of fear of HIV transmission to sexual partners. These topics were explored specifically as stigma research and the Stigma Index also cover these as areas that often contribute to stigma and discrimination (FPAI, IPPF, UKaid, 2010 pp7-23; Steward et al., 2008). In addition, the researcher asked their opinion about the marriage of the person living with HIV. A total of 105 respondents, with 60 males, 40 females, and five transgender women completed the survey.

Quantitative data analysis

The researcher entered the data collected from surveys into Microsoft Excel and then exported it to SPSS for analysis, using descriptive and inferential statistical tests with independent and dependent variables. Dependent variables were the risk behaviour and ART adherence, while the independent variables were age, gender, and marital status. Since a majority was associated with NGOs, this too was considered an independent variable. The researcher conducted chi-square tests to see any significant relation between dependent and independent variables.

Qualitative research

Data collection

To conduct the qualitative element of the study, non-governmental organisations's prevention projects were contacted to support with engaging the HIV community. HIV prevention projects are the congregation point for PLHIV who receive services and training. Each project has a 'drop-in centre' and a 'counselling room,' an office and meeting room. The counselling room was free after 3 pm and was used to undertake 1-1 interviews with respondents who felt comfortable being interviewed in the NGO environment. A similar approach was taken when interviewing respondents in care homes, when counselling rooms were available.

In the case of FGD, the researcher sought permission from the project manager and director of the NGO, who informed their registered beneficiaries (PLHIV) about the research, provided research information and details about the FGD. The NGOs had scheduled support group meetings and monthly meetings with peer educators and beneficiaries on fixed days. The researcher utilised these platforms to hold focused group meetings, and only those willing and consenting participated. The NGO director also gave permission for the care-home doctor to facilitate FGD meetings in the care homes. FGD also took place at drop-in-centres of the project. The reputation of the researcher as a trainer helped her gain trust and cooperation (Cohen and Arieli 2011, pp.432).

Procedure

Researcher conducted 1-1 interviews and then initiated FGD. The researcher used a conversational semi-structured interview schedule to gather adequate data. Probing questions e.g. (how, why), contrasting experiences (gender), imagining (what if), the impact of the event (diagnosis) and sensitive information (condom use, risk behaviour, ART issues, doctors' attitude) were sought. After 1-1 interviews, focus group discussions were initiated to delve deeper and broadly into themes that emerged. This approach helped to gain understanding and familiarity with different participants.

The project manager in each project that helped with recruitment of participants had fully informed participants about the FGD and its purpose beforehand. However, on the day of the FGD, the researcher sought

respondent's consent to take part. The researcher steered the conversation to seek information about i) diagnosis of HIV; ii) management of health issues; iii) behaviour of family members; iv) perceived stigma; v) efforts to prevent transmission; vi) use of condoms; vii) disclosure and reasons for non-disclosure. Most meetings lasted for approximately two hours. Respondents were not paid for their time but were offered refreshments for the participants.

In total, forty-eight participants took part in the qualitative component of the study. Ten HIV positive heterosexual males, ten TG, eight female sex workers, ten seronegative wives of husbands living with HIV and ten MSM participated in the FGD organised with these groups. All respondents were associated with the NGOs and had been diagnosed with HIV. Interviews and FGDs were recorded using a Sony USB port, with consent. They were then listened to multiple times and transcribed by the researcher who is bilingual and later translated from Hindi to English.

Qualitative data analysis

Qualitative data from 1-1 interviews and FGD were coded and categorised into themes. The researcher created codes from clusters of similar statements, words and meaning. The researcher conducted an inductive process of developing themes from data by going back to data repeatedly. The researcher revisited data from the identified themes to ensure no new meanings were emerging from data and information. (Cresswell, 2014 p.p.234). The themes that emerged from the discussion were double checked by going back to the data until final themes were established. Finally the researcher shared this information with a high official of Delhi State AIDS Control Society (DSACS) and counsellors from a few NGOs for validation.

Results

Quantitative results

The quantitative results show the frequency of occurrence of an event. The percentage score helps put the numbers into perspective. The chi-square

test was applied to deduce the impact of independent variables of age, gender, marital status and association with NGO on dependent variables of health behaviour, risk-behaviour, and ART Adherence.

The findings reflect the presence of internalised stigma, causes of risk behaviour, and problems in health-seeking behaviour. These findings complement the quantitative results.

Profile of the respondents

There were 60 males (57%), 40 females (38%), and five transgender (TG) (5%), similar to the national prevalence at that time in India (NACO 2011). The majority had low literacy and income, 85(81%) were interstate migrants, and 77 (73.3%) were registered with state HIV prevention projects. total 49 (46.7%) were 18-30 years old, and 56 (53.3%) were 30-60 years old. Sixty (57.1%) were married, 19 (18.1%) were unmarried, and 26 (24.8%) were divorced or widowed. In all, 84 (80%) were heterosexual, 14 (13.3%) homosexual males, and seven (6.7%) bisexual male

Behaviour-change communication and impact

A total of 53 (50%) knew all four modes of transmission. Nine had no awareness, while the remainder knew only one of the modes of infection. Sexual contact was the most known mode.

Causes of getting HIV infection and test

A total of 52(49%) took the test on the physician's recommendation, while 24(22.8%)took the test on the health social worker's advice. In comparison, 20 (19%) were diagnosed positive during the spousal examination, and the paramedical staff detected seven pregnant women (6.6%) HIV positive during prenatal tests. The remaining two (1.9%) were unsure.

Feelings after HIV diagnosis

The researcher asked a multiple-choice question (MCQ) to assess the respondents' feelings after HIV diagnosis. A total of 20 (19%) had guilt, and 12 (12.6%) had suicidal ideation. Another 12 (12.6%) were worried about their children, 10 (9.8%) were angry with partners, and nine (8.9%) feared death. Two (1.9%) had a fear of stigma, two (1.9%) had income insecurity, two (1.9%) believed that they would get well, while 33 (32%) felt nothing.

Since this was a multiple-choice question, the responses may not total N=105.

Internalised stigma

A total of 34 respondents did not disclose their status to anyone. Out of the 34 who did not reveal, 13 were females (including eight FSW), 19 males (including seven homosexuals), and two transgender people.

Risk behaviour

Risk behaviour includes participation in commercial sex, either as a worker or client, inconsistent condom use and having sex under the influence of alcohol. A total of 52 (49%) respondents reported engaging in commercial sex, 58 (55%) reported alcohol and substance abuse, and 52(49%) respondents;(20 males (19%), 29 females(27.6%), and three TG women) reported sexually transmitted infections (STI). Out of 84 sexually active persons, 49 (58.3%) did not use a condom in the last encounter.

Table 1 shows the predetermining risk behaviour factors. These are gender, age, and marital status, which significantly affect the risk behaviour

Table 1.
Factors impacting risk behaviour

Risk behaviour	Factor affecting	Chi Sq statistic	Chi Sq value
Commercial sex N=105	Gender	10.55507	0.01
Consistent condom use N=84	Marital status	10.95528	0.01
Consistent condom use N=84	Age	3.26852	0.05
Substance abuse N=105	Age	5.69585	0.01

Health-seeking behaviour

The majority, 97 (92.4%), affirmed visiting health facilities. However, 41 (42.3%) visited private clinics, 32 (33%) public health facilities, and 24 (24.7%) visited NGO clinics/care homes. The majority (54) (51%) did not face any problems. However, 24(22.9%) cited travel and cost barriers, 22 (20.5%) felt time constraints, while women needed escorts for travel and babysitters at home to visit a hospital.

Impact of social workers on ART adherence.

Total 77(73.3%) respondents were registered with HIV-prevention projects. These NGOs employed professional social workers in primary positions as project managers and counsellors.

Table 2. shows that the understanding of a) ART initiation, Chi Sq =0.001, b) facilities delivering ART services in general respondents N=105, Chi sq=0.01, and c)ART adherence behaviour among the ones on ART, N=60 was significantly affected by association with an NGO, at, and Chi sq =0.0005 respectively.

Adherence behaviour

The researcher assessed adherence to ART on a self-reported recall basis. The key question was the number of days they took ART.

Table 2

Impact of social workers' intervention on ART adherence knowledge and behaviour

ART related knowledge, behaviour	Chi Sq statistic	Chi Sq value
Knowledge of initiation of ART in general, respondent N=105	17.17	0.001
Knowledge of hospitals delivering ART services in general, respondent N=105	9.611	0.01
Adherence behaviour in PLWHA N=60	7.483	0.0005

The significant findings in Table 2 suggest that the respondent's association with the NGO significantly impacts the knowledge and behaviour related to ART. Qualitative results

Feelings after diagnosis

There is guilt, shame, suicidal ideation and internalised stigma reflected in non-disclosure. The fear of being found out by family and neighbours creates stress of being labelled as immoral and imperfect, and the only way out seems not to disclose the status. So non-disclosure is due to a perceived stigma. It is not essential whether real stigma exists; perception

itself affects the feelings.

I travel 60 km to access this ICTC (Integrated Counselling and Testing Centre) since I fear encountering someone known. If I go to a nearby centre, it will be difficult to hide the status. Doctors know our family. I am a village head, and it is very shameful for me to get infected with this. I have not disclosed to anyone, even my wife...’ (An elderly man who got infected by an FSW, wife’s status unknown)

The Internalised stigma results in accessing a far-off health facility which later creates a barrier to health-seeking as it is not feasible for a longer time.

Poor awareness of modes of transmission contributes to fear of contagion, which is an imagined fear, but it leads to isolation. In addition, the fear of infecting loved ones changes the life of the PLWHIV. Finally, the separation of the utensils and isolation reflects internalised stigma.

I have stopped eating with family and keep my utensils separate. Now I don’t allow my children to dip their biscuits in my tea.’ (An HIV-positive man in ‘efforts to protect loved ones from getting infected)

This statement reflects a lack of awareness of modes of awareness, thus causing the unnecessary fear of contagion resulting in isolation and stigma.

This finding may help the social worker explore the reasons for internalised stigma, depression, and suicidal ideation and develop an intervention framework. In addition, the feelings of anger and a sense of victimisation may result in unprotected revenge sex without disclosure. In this case, the social worker needs to counsel and intervene.

The internalisation occurs due to the realisation of being on the margins of prescribed normative sexual behaviour, which is monogamous, heterosexual and within marriage. The following statement reflects risk behaviour, causing internalised stigma, guilt, and non-disclosure. They also manifest subjugated role of women in an intimate partner relationship.

I cannot ask my husband to use a condom as we have never used it. I have always used intrauterine devices for birth control. Now, I can neither share my HIV status nor stop him from having sex without a condom. What if he gets infected? I will be caught. Better if I die.’ (A home-based HIV positive female sex worker; whose husband’s status is unknown, assumes him to be negative and is in a moral dilemma as she had educated her children with the money she got from sex work. She questions if what she did was a sin)

The fear of transmission to a negative intimate partner validates the guilt in PLHA when their loved ones get infected. The stigma of HIV results in non-disclosure and continuation of risk behaviour, as described in Fig 1.

Risk behaviour

Discussion with a group of 10 HIV-positive heterosexual men on the use of condoms affirmed that non-disclosure of HIV status obstructs condom use with an intimate partner, putting their life at risk. Here non-disclosure is the predisposing factor to risk behaviour, emanating from internalised stigma and fear of being found out.

I cannot use a condom with my wife as we have never used it; how can I start using it now for she will suspect me? It is better that, once she gets pregnant, she gets the test and then we both are found positive. That is what some of my friends did. At least I will not get the blame.’ (HIV-positive man, 25 years old)

Other men countered those who supported this view and advised on disclosure and condom use.

The researcher conducted FGD with ten homosexual men on a project site, and some were married heterosexually. Homosexual married men were more concerned about not disclosing HIV as they feared that it might lead to revealing their sexual orientation.

See, I got married just to fit in this society, now waiting for her to get pregnant so that I can be relieved and establish my masculinity. I am not using a condom with my lover too. They would leave you the moment you use a condom.’ (Homosexual man, married to a woman).

The patriarchal society pushes an HIV positive homosexual man for progeny. The nonacceptance of homosexual relationships makes them stigmatised. When coupled with HIV infection, double stigma forces a man to have unprotected sex with his wife. The risk behaviour of HIV-positive people poses immense ethical challenges for social workers. They need to guide PLHA on positive prevention and the risk of HIV double-strain infection and protecting their intimate partner.

Alcohol consumption presumes risk behaviour. Female sex workers reported consuming alcohol before sexual encounters. During the FGD with sex workers, they shared that alcohol helps handle indiscriminate and

unrelenting partners. Alcohol use is a predetermining factor in unprotected sex and risk behaviour.

It is important to point out that the FSW group reported that they did not encounter clients without a condom. In addition to this, few were trained by social workers to use condoms without the client knowing. This training manifests social worker's intervention in changing attitude, behaviour and practice.

A group of TG women who participated in the FGD stated that it was difficult to get a partner who would use a condom. Due to stigma, the transgender does not find homosexual partners readily as they are hard to identify as many maintain a heterosexual identity. Hence transgender women succumb to the pressures of their partners.

Health-seeking behaviour

While enquiring about the reason to get registered at a far-off place, respondents shared that they feared encountering someone known. In addition, many preferred private clinics to government hospitals as government doctors and nurses would reprimand them for STIs (sexually transmitted infections) and missing appointments. 'My infection does not go, and doctors get angry. I am too scared to face them,' said an infected man, married. Here the HIV positive individual continue to risk behaviour as condom use becomes difficult in an existing sexual relationship. In this situation, the couple keeps infecting each other if the treatment is not for both partners. There is a continuous infection cycle in a multi-partner relationship like sex workers.

ART adherence

During a focus group discussion with ten heterosexual men about problems faced in adherence, one respondent shared that non-disclosure was the primary barrier. The readiness to take medicine was due to Behavior Change Communication, but internalised stigma persisted and affected the adherence.

I have not disclosed to anyone in the family, and it is problematic to take medicine in front of others. I go to the washroom to take my medicine. I keep it hidden from everyone.' (A labourer)

The problem of the employer not being supportive was familiar to many.

Mostly my factory owner refuses to give leave. He deducts wages if I take leave (for ART or a CD4 test) and then there is a gap of a few days.' (A migrant worker in a factory)

The respondent had not shared their HIV status with the employer for fear of stigma and could not get leave.

We can see that adherence behaviour is affected by the internalised stigma, the environment, and the immediate sphere of life of the individual living with HIV. Social workers require an understanding of these issues to develop interventions for the workplace and family. Most respondents shared that ART workers told them about the importance of punctuality.

'Sir told me that medicine keeps my virus sleepy and if I miss it will wake up and start killing my soldiers, so I try to keep it sleepy. He has also told me that I may face some problems, but that will go as my body will get used to it.' (An adherent man, status not disclosed).

These are crucial findings for the social worker in a field situation as it accentuates the need for close monitoring, support, and help for the PLHIV in their health-seeking journey.

Integration of the two approaches

Both the methodologies converge to give a comprehensive insight concerning risk and ART adherence behaviour. The researcher used triangulation to integrate both types of research. 'A typical procedure integrates the two forms of data in a discussion section of a research article by first stating a statistical finding and then illustrating the finding with a qualitative quote' (Creswell and Cresswell, 2005, p.p.319).

The quantitative data show that gender, age, marital status, and NGO association impact risk behaviour. The qualitative findings too reflected that gender and marital status had impacted the risk and adherence behaviour due to patriarchal norms.

Table 3. below demonstrates the convergence of both methodologies. The sociocultural environment of patriarchy with the internalised stigma of sexual orientation, sexual risk behaviour, and HIV status are facilitators of continued risk behaviour and barriers to adherence and health-seeking behaviour.

Table 3
Table of integration of main quantitative and qualitative findings

Theme	Quantitative data	Qualitative findings
There was low awareness of modes of transmission	Nine had no awareness.	'I have stopped eating with family and keep my utensils separate. Now, I don't allow my children to dip their biscuits in my tea.'
Feelings after HIV diagnosis.	20 had guilt 12 had suicidal ideation	'I am a village head, and it is very shameful for me to get infected with this,' What if he gets infected? I will be caught. Better if I die.'
Internalised stigma manifested by non-disclosure and isolation. This caused unprotected sex.	34 did not disclose	I cannot ask my husband to use a condom as we have never used it. I have always used intrauterine devices for birth control now, I can neither share my HIV status nor stop him from having sex without a condom. What if he gets infected? I will be caught. Better if I die.' I have not disclosed to anyone in the family.
Risk behaviour is impacted by gender. A woman married to a positive man exposes her to risk. A positive man has to maintain the status quo and continue unprotected sex.	0.01	I cannot use a condom with my wife as we have never used it; how can I start using it now for she will suspect me? It is better that, once she gets pregnant, she gets the test and then we both are found positive. That is what some of my friends did. At least I won't get the blame.'
Risk behaviour is impacted by marital status.	0.01 Twenty respondents were diagnosed due to spousal tests.	See, I got married just to fit in this society, now waiting for her to get pregnant so that I can be relieved and establish my masculinity.'
The distance, situation, and doctors' attitude impact a visit to a health facility, which pushes the person away. Emotional processes underlie the health behaviour of the hidden population.	Travel and cost barrier. Workplace issues Attitude of doctor	I travel 60 km to access this ICTC (Integrated Counselling and Testing Centre) since I fear encountering someone known. Mostly, my factory owner refuses to give leave or deduct wages if I take leave.' 'My infection does not go, and doctors get angry. I am too scared to face them.'
ART adherence	Impacted by NGO chi sq. 0.0005	'He has also told me that I may face some problems, but that will go as my body gets used to it.'

Discussion and implications for the framework of practice

The results show that poor knowledge of transmission causes the PLHIV to isolate and indulge in risky behaviour, too, resulting in infection transmission. Most respondents were tested due to illness, reflecting the poor perception of the behaviour causing HIV. There is evidence of the inability to control the environment causing the risk. Berkman et al. (2011) established the link between health literacy and health outcome. Health communication is necessary but was not a sufficient condition for desired changes in health behaviour. It requires skills to change behaviour (Baldwin et al., 1990, Chang et al 2014).

This link between health literacy and health outcomes reiterates the need for education and awareness. Health models, such as health belief and the cognitive-behavioural model, suggest health literacy. However, extrinsic factors impacting health behaviour are more potent in the case of PLHIV. These include losing a day's wage, time spent in long queues, and the cost of travel to a health facility, along with the lack of support from family and community. Therefore, community social workers may plan events to achieve health awareness in the general community and risk assessment of the various population groups through a behavioural survey of communities to plan suitable interventions for the key populations.

The results show that the practice of risk behaviour was prevalent among respondents. The significant relationship between age and risk behaviour corroborates research in Chennai, India, in which risk behaviour is affected by age (Newman et al., 2008). However, the current study found that gender and marital status also significantly affected risk behaviour, which may be more relevant in traditional societies where patriarchy prevails. Qualitative data reflects how a woman can not ask her husband to use a condom. It also shows how men are infecting women due to patriarchal procreation pressures. This low status makes women vulnerable to HIV (UNAIDS 2020). In addition, poor condom use is reported and is affected by the predisposing factor of alcohol and substance abuse before sex (Kalichman et al., 2002). Another study in India established the role of alcohol in adversely impacting ART amongst PLHA (Schensul et al., 2017).

Condom use was affected by marital status, age, and gender. This finding corroborates the role of context in risk behaviour, as established by Larios et al. (2009). The marital status impacts condom use as progeny and childbirth are more important than the health and safety of women. Women remain in unquestionable sexual relations with husbands and cannot ask for condom

use. Women diagnosed with HIV during pregnancy show the vital role of gender in condom use.

Airhihenbuwa and Obregon (2000 p 12) advocate the development of communication strategies that must be contextualised to have an impact. Advocacy contextualised and coupled with behavioural skills can yield effective behaviour change (Herbst et al., 2005, p 237). Along the same lines, Fisher and Fisher (1992, pp 463) recommend that group-specific AIDS risk-reduction interventions need to be developed to have any impact. Deuba 2020 recommended behavioural interventions reduce risk behaviour among groups of MSM, FSW and TG.

According to Catania et al (1990, pp 54), the AIDS Risk Reduction Model emphasises the need to label behaviour as risk and address the barriers. The process of labelling behaviour as risk, committing to change, and enacting ways to bring about change goes through many stages where one may skip the process of relapse. Labelling behaviour, however, labels the population and stigmatises them, mainly because it is not within social norms. Additionally, it considers environmental and social factors and negotiations with the sexual partner, with the locus of onus resting with the person who needs to commit and enact the change. It also emphasises the effort to obtain social support and professional helpers before success.

Behaviour changes over stages, beginning from pre-contemplation to maintenance. (Prochaska and Velicer et al., 1997). Continuing risk behaviour despite pre-test and post-test counselling reflects the inability of the person living with HIV to proceed to stages of action or maintenance (Munro et al., 2007). In addition, the current study emphasises that an individual's volition only does not impact risk behaviour as it is significantly affected by the context of marital status, gender, and age. Therefore, the social worker needs to identify extrinsic factors impacting behaviour. It will then be easy to develop intervention rooted in an understanding of the sex workers who might not be able to negotiate condom use or who might consume alcohol before a sexual encounter. The social worker may organise the groups of sex workers and develop their communities, a process in which behaviour change towards harm reduction may be rewarded and getting infected is not stigmatised as social workers empathise with the sex workers. Street-based sex workers need more intensive field outreach by social workers; using snowballing.

Additionally, stakeholders and key informants may identify the sex workers and give assertiveness training and condom negotiation skills to deal with demanding clients. For brothel-based sex workers, the social worker may have to understand the power dynamics before devising intervention plans for

harm reduction. Sex workers may be given female condoms and encouraged to use them to protect themselves from those clients who are apathetic regarding condom use. They can connect through the internet, a Facebook page, or a WhatsApp group. Currently, virtual outreach for contacting sex workers who only operate through virtual means needs to be designed for any legal help or liaison with social assistance or with police to protect the sex workers from criminals.

MSM need similar intervention plans. Social workers need to be sensitive to added sociocultural pressure. In India, they may behave like straight heterosexual men and are thus hard to reach. They may have to conceal their identity due to the stigma of their sexuality or of having a positive status. Sexual behaviour does not define gender identity among Indian homosexual men (Asthana and Oostvogels, 2001). In the Indian context, the onus on progeny through male children may impact condom use, putting their wives at risk of transmission. The social worker needs to organise community events to make the larger community understand alternate sexuality as a natural phenomenon for creating an excellent social environment.

Homosexual men (and LGBTQ communities) must be counselled and encouraged to disclose their sexuality to intimate partners who might be at risk. If they are HIV positive, they must be enabled to exercise positive prevention. HIV-positive men who need to consummate for progeny require guidance for fertility-related issues sperm washes. The social worker is in an ethical dilemma when protecting the confidentiality of PLHIV or the life of an intimate partner. In India, we have the HIV/AIDS Act 2017 (GOI 2017) to guide the health worker about beneficial disclosure if the infected person is about to infect someone and is not disclosing their status before sex.

The results show that the internalised stigma of HIV still prevails and is manifested in non-disclosure, a negative attitude towards self, and the separation of utensils. The stigma of HIV amongst PLHIV counter-productive from the prevention perspective as it impacts risk behaviour and ART adherence (Kingori et al., 2012; Thomas et al., 2005). Internalised stigma simultaneously affects disclosure and relationship with family, friends, and co-workers (Kingori et al., 2012). An attribution model indicates that common sociocultural beliefs about HIV/STD impact individuals by enhancing fears about stigma (Lieber et al., 2006). Stigma and its internalisation reflect the unequal power relationship between PLHIV and the HIV-negative and, to equate it, either non-disclosure or an internalising defence is adopted (Poteat et al., 2013).

Most public health models are concerned with overt, observable behaviour

of the larger public rather than the emotional processes that underlie the health behaviour of hidden populations. Although stigma is a large area of research, we limit the discussion by signifying only its presence among the respondents and its impact on health behaviour.

Stigma is the cornerstone of any social work intervention in HIV as it is the axle on which risk and health-promotion behaviour rest. The social work profession is of immense help in handling this by intervening at multiple levels, which is very difficult to achieve (Kaufman et al., 2014). Nevertheless, one may strive to bring change within the individual and in the various spheres directly or indirectly impacting them. At the personal level, acceptance and education may help the person harbouring internalised stigma to get a new perspective of their infection. Connecting them to positive speakers and introducing them to a group of others in the HIV community may help develop a positive self-image, confidence, and a perspective on their risk behaviour and the sociocultural factors perpetuating it. Gradually, the PLHIV can become involved intensive in activities aimed at eliminating internalised and prevalent stigma. By encouraging them to participate in group-related activities, social workers can help them overcome isolation. These activities could include awareness-generation camps or community-based street/road plays for awareness generation, commonly known as street plays in India. In addition, social workers can involve the PLHIV in the social-action programme, advocate for their rights like property rights, health or education, or custody of children to make society aware of the persons' political and legal rights. They can use mass media to change public opinion about HIV.

A preference for visiting private doctors, or NGO clinics, shows some resistance towards state-owned /government health facilities. Distance travelled was a significant barrier beside the health provider's attitude. However, despite the quoted obstacles, the adherence behaviour of women was better than that of men, corroborating the meta-analysis by Chakraborty et al. (2020) that found a gender gap in ART adherence, favouring women. Men in low-paying jobs find it hard to bear transport costs, and the prospect of losing a day's wage deters the person from seeking help (Ngo et al., 2007).

Adherence is a problem in chronic diseases, and 24.8% is the average non-adherence rate (DiMatteo, 2004). In the current study, ART adherence knowledge and behaviour were not affected by gender, income and marital status but were significantly affected by NGO association. This finding establishes that the social workers appointed at the targeted intervention projects educate, monitor, and reinforce the ART uptake. Ngo et al. (2007) have proved that social workers and health workers have a significant role

in ART uptake. A meta-analysis found that most studies on social-work intervention had a personal level of intervention rooted in a cognitive-behavioural model; however, their substantive effectiveness was wanting (Gorey et al., 1998). Thus, the social worker's role in ART adherence must be multistage and multilevel. The social workers must know that behaviour persists if it is rewarded immediately. Hence, immediate adverse effects of toxicity may overshadow the long-term rewards of ART adherence.

Institutions like hospitals and workplaces can extend support where employers, doctors, and staff accept them and social workers spend ample time listening to the PLHIV. The social worker can create virtual groups and send reminders, reinforcing adherence behaviour by rewarding for adherence. The social worker may work towards achieving 'means-tested' allowances for food bills, or free bus passes at the government/state level. Such steps may address the issue of disclosure too. However, the social worker should be mindful of the inequalities prevalent that are the root cause of infection.

Antonio Guterres, the UN Secretary-General on April 2021, stated that the key issues that caused the failure of UNAIDS to achieve global targets were prevailing inequalities of gender, and the marginalisation, and criminalisation of certain communities. End Inequality, End AIDS' is now the new slogan for UNAIDS (UN 2021).

Limitations

In the snowball sampling, the seed,' or the original person initiating the process, may refer to others having similar behaviour, attributes, and backgrounds, resulting in over-representing people with similar behaviour or issues. In social network bias may rule out the participation of persons out of social networks and isolated. Another issue could be when a snowball 'stops rolling out' (Parker and Scott 2019, pp 432). For example, there is no representation of intravenous drug users, a significant segment of the key population in the current study. Another limitation is that most respondents were associated with NGOs' HIV-prevention projects, reflecting a better situation, better attitudes, and greater understanding due to regular training in various aspects of care and treatment related to HIV. While this is a strength for those participants, the methodology used did not measure progressive development or differentiate where each individual was in their journey with HIV on a case by case basis. A third limitation is that the data on health

services and ART adherence was self-reported. As a result, it may suffer from responses deemed to be socially desirable.

Developing a practice framework

The data reflects a need to develop a practice framework that caters to multiple layers, as suggested by (Golden and Earp 2012; Kaufman et al., 2014; Mcleroy et al., 1988).

There is also a need to develop community capacity to identify, develop, and address a social and public health problems (Mcleroy et al., 1988). Rotheram-Borus, (2009) recommended establishing a framework to understand behaviour change that identifies issue-specific and population-specific information necessary for healthy actions. It would have effective behavioural self-management skills, address environmental barriers and develop community support for beneficial activities.

Bhattacharya (2004) recommends that work with HIV-positive persons stresses the issues of context and culturally sensitive intervention. This idea resonates with Mcleroy's (1988) socio-ecological model of health. Nevertheless, a few points are emerging from the results and discussion. These are as follows.

First, risk behaviour is unpredictable, complex and dynamic as it emerges from unforeseen circumstances; however, the findings indicate that gender of the person, marital status, and age impact the risk behaviour. This finding is helpful for social workers in the field pay attention to these attributes, get alerted to possible risks, and design interventions.

Second, despite rigorous behaviour-change communication, health literacy fails to impact. The key populations require information, education, communication, and interventions to enhance their assertion against the risk posed to them. For example, as sex workers, as men having sex with men, as vulnerable young unmarried mobile men, or as housewives, in the face of unprotected sex. In addition, the patriarchal society has a culture of unquestioned sex with married partners who may be a source of infection.

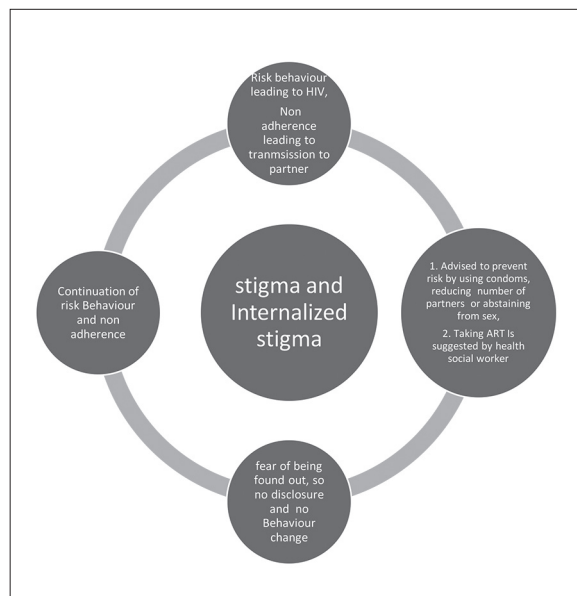
The results also suggest that close monitoring and follow-up by NGOs impact adherence behaviour; hence role of a social worker at every step is vital. Munro et al. (2007 p6) stated that Health Belief Model may not predict risk-reduction behaviour that is more linked to socially determined or unconscious motivation.' Whereas, in a review of significant theories of adherence

behaviour, he found that communication theories used as part of bigger models are not influential in terms of adherence as they do not consider the influence of external factors. There is criticism of cognitive theories for not viewing the positive effects of negative behaviours. The theory of reasoned behaviour does not consider the emotional impact of religious beliefs causing HIV stigma. Stage theories do not conclusively suggest their impact on adherence. They conclude that there is insufficient evidence to indicate the usefulness of the theory of intervention for ART adherence.

Mcleroy et al. (1988) proposed the health promotion model; intra, inter, community, institutional, and environmental levels of intervention, which – according to Kaufman et al., (2014) must be group-specific. Chu and Selwyn (2011) have recommended developing new models for HIV prevention.

Figure 1 below shows that stigma and internalised stigma result in a continuation of risk behaviour. Furthermore, non-disclosure affects ART adherence adversely, resulting in transmission. This creates a vicious cycle of continuation of risk behaviour and non-adherence. Therefore, it is pertinent that social worker must understand this cycle and attempts to break it. The framework for practice calls for understanding the various levels of intervention and the interlinkages between them.

Figure 1: Factors affecting risk behaviour and ART adherence



Appendix 1 presents the multistage-multilevel framework of practice which works in two directions. The framework should be self-explanatory and easy to follow in regards to factors and interventions that need to be considered when working with PLHIV at different stages of their illness.

It carries the multiple stages of infection and treatment starting as follows:

- Stage 1 pre-infection vulnerabilities,
- Stage 2 identification of key-population,
- Stage 3 taking HIV test and getting a positive result stage
- Stage 4 ante-Retroviral Therapy (ART),
- Stage 5 disclosure of HIV status,
- Stage 6 Living with the virus

Each stage further is marked by the issues faced at each level. These levels range from intrapersonal to interpersonal, institution(family, workplace, hospital, college) to community (community of key population or larger mainstream community) and environmental (state, policymaking). At each level, interventions are suggested. This framework gives an idea to social workers who may devise their interventions take cues from their sociocultural environment. In addition, it is designed to respond to each individual's circumstances and needs as uniquely as they are presented. While the framework is presented in stages, it should be noted that some PLHIV may well have engaged in TasP or pre-exposure or post-exposure prophylaxis. Disclosure and living with HIV may also take place before utilising assisted reproductive treatment therefore, this framework should not be considered as rigid. (See Appendix: A multistage multilevel intervention framework of social work practice with HIV-positive persons in India.

Recommendations for practice-teaching

This framework emerges from the Indian context. In other countries, the politico-legal and cultural environment may be different, requiring a different outlook that emerges from that specific context. However, the multilevel interventions converge to have an impact on the PLHIV. The multistage approach helps the social worker identify the stage at which the client is positioned and develop the plan and strategy. The problems are common but not identical, and methods for helping HIV-positive people

through various life cycle stages will need individualised treatment. The significant recommendations practitioner uses are to understand the context and the inter-relationship between the multiple levels of intervention.

The worker and social-work educator need to give a country-specific understanding of the critical population, which may vary. The knowledge of family issues may be varied and unique; hence, developing locally relevant strategies would work. The point of stigma could be a common global phenomenon. However, social workers' sensitivity in devising population- and context-specific strategy, underpinned by the basic knowledge of social work and the social situation of that country, would be relevant. This framework will guide the social workers in devising interventions to promote a better life for persons living with HIV/AIDS.

On the other hand, the social work educator may emphasise that every case of HIV is a personal tragedy and calls for an immediate response from the social workers. The groups of positive persons may help develop group work knowledge and practice. The examples of infection management will help the social-work educator demonstrate the method of welfare administration and social action to illustrate how programs can be planned and executed in a real-life situation. It also can be shown how a grassroots problem can become a policy matter. More exposure during fieldwork is required for them to harness the social work practice with the marginalised.

Conclusion

The framework of practice described above emerges from the realities of the Indian context. However, it is different from any other model or framework as it provides 'coordinates' in vertical and horizontal directions. The practising social workers may identify and locate the exact point of intervention with the PLHIV, whether it is infected or family, community / institution or environment or policy, or the stage of infection the person is. They may generate an adequate response by taking help from the possible issues that the PLHIV are facing. They can contextualise the intervention according to the social realities of the client. It is important that this model is introduced not just in practice but in the teaching, theoretical and practice components in social work to ensure social workers adequately respond to the needs of people living with HIV at various stages of living with their illness.

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Appendix: A multistage multilevel intervention framework of social work practice with HIV-positive persons in India

Stage of Intervention: Stage 1 Pre-infection vulnerabilities

Level of Intervention: Intrapersonal Issues

- Ignorance and curiosity
- Vulnerability to risk behaviour
- Lack of knowledge and sense of shame around sex and sexual health
- They do not have anyone to counsel them
- The social worker to reach out to them and resolve their curiosity
- Resistance to take or poor adherence to TaSP/pre-exposure and post exposure prophylaxis

Level of Intervention: Interpersonal Issues⁹

- The family environment is closed and conservative, with no communication with growing children, and shame is associated with the word “sex”
- No appreciation that HIV can be transmitted through non-sexual mean
- The social worker may involve families in the awareness programme
- The family must create an open communication environment for growing children to make them feel comfortable sharing their anxieties
- Social workers must educate families to identify vulnerabilities and work with young daughters-in-law and adolescent boys and girls to protect them from HIV through discussing it openly

Level of Intervention: Institution

- Stigma and discrimination at the workplace
- Doctors nurses discriminate and blame
- Social workers in hospitals and health institutions may practice dissociating mortality from HIV infection to address stigma through positive communication strategies
- Schools and workplace interventions and workshops can be designed with the stake holders

Level of Intervention: Community

- The community can be educated and made free of stigma and discrimination through holding community events organised by the social worker or community worker regarding infection transmission
- This information must come from governmental institutions
- Community workers may identify the vulnerable population and work with them closely

Level of Intervention: Policy/ Environment

- Information, health communication, and use of mass media to inform public about infection, its modes and symptoms
 - We are enhancing the risk perception of the population for self-assessment for initiating HIV tests
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Stage of Intervention: Stage2 Identification of Key Population (Men having sex with men, LGBTQ/Sex workers/Sexual partners of key population/ Bridge population (truckers, migrants, mobile population, youth living away from family)

Level of Intervention: Intra-personal Issues

- There is an internalisation of the stigma of belonging to any key population, e.g LGBTQ, a sex worker, or a high-risk-behaviour person
- Continuation of risk behaviour. As per the figure 1
- The social worker needs to reach out as a non-judgemental person and support in risk reduction and harm reduction behaviour. Also to encourage and educate about pre-exposure and post exposure prophylaxis

Level of Intervention: Interpersonal /family issues

- Women married to the bridge population, young unmarried males, identified as a key population to reach out to on a one-to-one basis
- The social worker to develop rapport and encourage/motivate the person regarding testing
- Social workers must reassure the vulnerable population concerning confidentiality, accept them, and emerge as a non-judgmental accomplice who must continue the relationship as many may turn positive. The relationship would be long-term, unlike other social-worker interventions, which are short-term
- Enhance the perception of risk and susceptibility to HIV. The person may contemplate taking an HIV test
- Small groups or cliques of such population segments should be formed into support groups, including health workers, to ease anxiety and fear and generate a feeling of togetherness
- Family is to be made aware of and accept the presence of alternate sexualities, drug behaviour, or any other issue in general
- Social workers can organise life-skill training or workshops for an assertion to promote saying “No” to peer pressure and asserting the right to exercise their will in any situation
- The strategies must consider the context of key populations after the survey and research

Level of Intervention: Institution /hospital/school/college/workplace

- Develop communication strategies on HIV prevention to generate awareness in a non-stigmatising and non-threatening mode
- Institutions must develop outreach planning for key populations and create a connection that they can use
- The outreach projects of the institution/health facility or civil society can organise community meetings and entertainment sessions to maintain a connection
- The social worker will follow up and ensure that training staff will conduct testing and counselling in a conducive environment
- Capacity building of the staff to serve with sensitivity
- The client should understand the confidentiality of the counselling process to develop trust in the institution. Hence, the presence of a system to maintain confidentiality and uniqueness for traceability

Level of Intervention: Environment /Policy

- Social workers can campaign for a positive political-legal environment to protect the rights of positive persons or for the removal of those provisions impacting their human rights
 - Their property rights and rights to education and livelihood must be protected
 - Sex workers should be allowed to maintain secrecy without being chastised for their work
 - A positive political message for these people will help remove the stigma
 - Social workers must address Human rights violations
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Stage of Intervention: Stage3 Taking HIV Test and getting a positive report(Some may get a negative report)

Level of Intervention: Intrapersonal Issues

- Increased emotionality
- Suicidal ideation
- Guilt
- Anger (if the victim feels that s/he was not indulging in risky behaviour and that the partner infected them)
- Revenge sex (if the PLHIV feels that s/he has been cheated)
- Sense of victimisation if the client feels that s/he has been victimised for the family's sake – such as marrying a gay, forced heterosexual marriage for a gay person, or sex work to supplement the family income
- Social workers as a counsellor must be present at the time of test results, either HIV counselling centre or ART centre, to comfort and guide the newly diagnosed positive person about positive living and positive prevention in a non-stigmatising manner. Comforting is more critical than education as a person might become non-responsive due to heightened emotions. The social worker must keep communication channels open and available

- Encourage TasP/pre-exposure and post exposure prophylaxis and general ART adherence
- Reassure about undetectable = untransmissible and importance of viral suppression

Level of Intervention: Interpersonal

- Awareness generation and handling myths are vital to address stigma
- Teaching about low-risk, no-risk, and high-risk behaviour to help overcome internalised stigma
- Non-judgmental attitude
- Assurances about life after HIV, importance of adherence, viral suppression, U=U (undetectable = untransmissible) so HIV no longer a death sentence
- They must ensure confidentiality about status and instil trust in the healthcare system
- Overcome negative emotions and encourage the positive living to prevent risky behaviour
- Social workers need to be on high alert for any precipitating episode that may lead to trauma, infecting others, or suicide. S/he must be available
- Social workers may organise training about condom use or negotiation of condoms through role-play and competition within the group to harness skills
- Educating the group about harm reduction and risk prevention at this stage is vital as many may get Lost to Follow-Up (LFU) after their HIV test. Therefore, social workers must educate and support them

Level of Intervention: Institution /hospital /NGO

- Trained health workers/frontline staff need to be appointed to handle anxiety. The Social worker must handle feelings of guilt and fears
- Education of the client about the virus to instil self-efficacy is vital
- A social worker can address myths to reduce internalised stigma
- The social workers can assess socioeconomic status to facilitate services for poor HIV-positive persons
- By liaising, the PLHIV with the government scheme for care and support will enhance their self-efficacy
- Provision of TasP/pre-exposure and post exposure prophylaxis for HIV negative partner, and encourage adherence, HIV counselling, promote U=U message and importance of viral suppression

Level of Intervention: Community

- Community events for awareness generation to encourage non-discriminatory attitudes and practices and that HIV is no longer a death sentence, and U = U message
- Education about HIV may help to eliminate stigma and discrimination
- The social worker should strive to develop a community-based crisis-

intervention team to address any situation where the client or their intimate partner is at risk. This risk could be an infection or human-rights violation (sex worker community, community of spouses of IDU, gay community, or parents of PLHIV adolescents/youth community)

Level of Intervention: Policy/environment

- Having a low counsellor-client ratio will help in better service delivery. Therefore, social workers must advocate a low ratio to ensure quality time for the client
- Attractive pay and promotional avenues will attract a pool of qualified social workers

Stage of Intervention: Stage4 Ante-retroviral Therapy (ART)

Level of Intervention: Intrapersonal

- The toxic effects of medicine impact adherence
- The previous policy of delaying the ART interferes with the new TasP policy
- A person may lose hope after diagnosis and refuse to get treated. Loss to follow up
- Social workers must instil a sense of empowerment and self-efficacy in clients
- The social worker must identify the causes of depression and refer for treatment

Level of Intervention: Interpersonal/Family /Network

- Clients' spouses and families may question ART intake
- Social workers can encourage health-seeking behaviour and guide the client as per their situation
- Social workers to provide support and guidance to make the infection stigma-free
- Social workers should create support groups with the help of NGOs
- The social worker must strive to normalise adherence by positive reinforcement of adherence behaviour through rewarding and recognising this within the group
- Toxicity issues must be resolved to keep people on the care continuum
- Support for HIV negative partner
- Level of Intervention Hospital, Workplace, college
- Social workers conduct adherence counselling and anticipate toxic reactions during ART counselling sessions
- Social workers can explain the harmful results of discontinuation in simple terms
- The environment at the ART centre must be made culturally competent with the depiction of pictures and movies where homosexuality and sex work are normalised to remove the internalised stigma
- Liaison with mental health and wellbeing centres to be developed to cater for

people undergoing mental health issues due to HIV

- Include education about safer conception

Level of Intervention: Community

- Experience-sharing helps clients learn that it is normal to have toxic effects, but adherence is maintained
- The community must be taught the importance of ART in-take
- The social workers may moderate meetings for the sharing of medication experiences and to resolve non-adherence issues

Level of Intervention: Environment /Policy

- Community-specific education material and messages need to be developed for example, a flipbook or a movie to MSM may demonstrate same-sex issues. Similarly, for sex workers, it can show their specific issues of being street-based, home-based, or brothel-based. Again, young students, pregnant women, or truck drivers must be counselled according to their sociocultural environment
 - The policy of appointing positive persons in the jobs, and making separate cards for benefiting positive persons in terms of food bills or travel passes may help them access healthcare facilities and adhere to medication
 - Health Apps may be developed to monitor adherence
 - The public-health sector can develop linkages with local preferred private-practitioner doctors to reduce patient load at public hospitals, utilise community resources and reduce the stigma of visiting an HIV-labelled health facility
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Stage of Intervention: Stage 5 Disclosure of HIV Status

Level of social work Intervention: Intrapersonal issues

- To disclose or not
- To disclose to whom? Uncertainty about the consequences of disclosure
- Loss of reputation
- Exposure of sexual orientation
- Fear of rejection by loved ones
- There is guilt and repentance, concern for the family
- The fear of violation of rights(property, work, reproductive)
- Social worker needs to extend support if the client wants to disclose. In addition, impact assessment must be done to check for any possible harm due to disclosure
- Support for/and/around/with HIV-negative partner

Level of Intervention: Interpersonal

- Clients may want to confess to family. The social workers may organise a meeting with the biological family, which the PLHIV might have left because of sexuality, positive result or other reasons

- Explain to the client their right to confidentiality
- The client may not like to disclose to an intimate partner. The social worker needs to assess and intervene to protect a negative person. The social worker needs to ensure that the intimate partner is not at risk of transmission and take appropriate measures
- Explain the concept of beneficial disclosure
- Instil a sense of responsibility in the PLHIV
- Assess family and friends' attitudes before disclosure of the PLHIV
- Assist them in deciding about the level of disclosure
- Develop tolerance and acceptance for the client and provide a non-threatening environment
- Disclosure to be made by PLHIV only
- It is an ethical duty of the social worker to protect the negative intimate partner and encourage the client to share status

Level of Intervention: Institution Hospital/workplace/police/police /judiciary

- Legal awareness, advocacy for rights of the PLWHA. File suitable civil or criminal suits to protect rights
- Educate PLHIV to reduce internalised stigma to facilitate disclosure

Level of Intervention: Larger Community, community of positive persons

- Work towards developing “accepting communities” for HIV-positive persons to protect them from being pushed into the margins and continuing their risk behaviour
- Education of the communities to become facilitators of disclosure and not create barriers by stigmatising

Level of Intervention: Environment /policy

- A robust politico-legal environment must facilitate disclosure and protect the person from any possible violence following disclosure
 - The innocent intimate partner must also be protected by law
 - The violence perpetrated on the PLHIV must be a cognisable offence
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Stage of Intervention: Stage 6 Living with HIV

*Level of Intervention:*Intra-personal issues(spirituality)

- Guilt and repentance, concern for the family
- Meet their family and amend the wrongs
- Financial planning
- Look for an alternate job with compromised health

Level of Intervention: Interpersonal

- Social worker may help the client to confess to spouse and family
-

- They may not be living with any family member; the social worker must organise a meeting with the family
- Spiritual concerns must be addressed, such as confession, and venting pent-up emotions
- Poor social support and may require social workers to help with referring and empower them to engage with other services and broaden support networks

Level of Intervention: Institution, church, Hospice care

- Social workers may assist health facilities in organising care for the patient or palliative care for patients facing multiple syndrome issues or needing pain management
- The issues of dependents must be resolved to enhance their income and education, linking them to social assistance
- Support to avoid viral strain

Level of Intervention: Community

- The patient's community members may organise some small event to bring the biological family close to the person
- A spiritual discourse may be organised, and the patient may be connected to some religious or spiritual guru who can give meaning to their life
- Legal issues related to inheritance nominees of insurance be resolved for the peace and comfort of the patient
- The PLHIV may be included in a support group to address issues of isolation and loneliness
- Encourage engagement with community support groups and support groups and activities offered

Level of Intervention: Environmental /Policy

- The survivors and dependents must be linked to the government's social assistance programme
 - The government should initiate training and capacity-building programs for the survivors to live with dignity
 - Policies around safer conception, reproductive treatment, adherence and continuum of care to ensure inclusivity and fluidity in engaging a range of vulnerable groups e.g. LBTQI and transgender people.
-