



Understanding positive prevention practices among people living with HIV in Karnataka, Southern India

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RESEARCH

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Abstract

Background

Understanding positive prevention practices among people living with HIV (PLHIV) can provide useful insights to guide our efforts in preventing further HIV transmission, and helps to enable PLHIVs to lead healthy and responsible lives.

Method

A cross-sectional study was conducted in three sites of Karnataka: namely Belgaum (North Karnataka), Bellary (Central Karnataka) and Hassan (South Karnataka) districts. The study period was from March to September 2010. A total of 477 PLHIV were sampled and interviewed with the help of a structured interview schedule. The interviews were conducted by trained PLHIV community interviewers.

Results

Disclosure of status was fairly good among the studied population. The majority of men disclosed their HIV status first with their spouses, whereas women disclosed first with their mothers. Status disclosure was less among urban PLHIV when compared to rural PLHIV. Knowledge about Sexually Transmitted Infections (STIs) among unmarried men and women was low; higher proportions among them were involved in sexual relationships; and they reported no

condom use with their regular partners. Condom use with regular partners is found to be more effective when public health messages are given through peers. Status disclosure is having a role in motivating communities for Regular CD4 testing and ART uptake.

Conclusion

Unmarried PLHIV need to be prioritised in our prevention efforts, to enable them to adopt safe sex practices through appropriate peer-mediated strategies. As status disclosure with family members has an important role in adhering to ART, status disclosure with family members needs to be emphasized in our programmes.

Key Words

Positive prevention, disclosure, HIV, Karnataka.

What this study adds

1. Positive prevention is at the centre of prevention efforts among PLHIV, this study aims to study four important aspects of positive prevention.
2. Karnataka state has one of the highest rates of HIV prevalence in India, yet published information on positive prevention is limited.
3. This study provides a platform from which further exploration of the barriers to adopting positive prevention practices among PLHIV can occur and it can guide existing programmes to prioritise certain groups for care and support outreach and services.

Background

It is almost 25 years since the first case of HIV was detected in India and still, HIV/AIDS continues to be one of the most stigmatised diseases in the country. Myths and misconceptions continue to surround the public's understanding of this disease, which hampers, access to the right information and services contributing to further stigmatisation.



Positive prevention is a popular term, it is a very important aspect of HIV care, and it is important from both public health and human rights perspectives.¹

Conceptual framework

Taken from a public health perspective, positive prevention aims to increase the self-esteem, confidence and ability of PLHIV to protect their own health, and to adopt practices to avoid passing on the infection to others.¹

Amongst all aspects of positive prevention, disclosure and acceptance of one's own status, treatment seeking for sexually transmitted infections (STIs), condom use and seeking healthcare for opportunistic infections (OIs) are related at an individual level to protect one's own health and practices to avoid passing on infection to others.

Understanding these aspects among PLHIV can provide a useful piece of information to guide our efforts to enable them to lead a healthy life and take responsibility to prevent transmission of infection in the community

India has the third largest number of people living with HIV/AIDS in the world.² Among its six high-prevalence states, Karnataka is ranked the fourth in India, with an estimated HIV prevalence among antenatal clinic attendees of 1% and among STI patients of 7.57%.³ Karnataka probably contains more than 250,000 persons living with HIV. In an area of high prevalence such as in Karnataka, the stigma that surrounds the disease compounded by traditional and cultural factors, poses a challenge for many PLHIV to access quality HIV care offered by public and donor-funded programmes. In this context, studying positive prevention practices helps to understand health-seeking behaviour among PLHIV. This will also assist HIV care programmes to devise means and ways of delivering comprehensive HIV services for PLHIV.

Objectives

Since there is limited information available regarding positive prevention practices in the state of Karnataka, this study was undertaken to understand the practices related to positive prevention among PLHIV with specific focus on:

- disclosure of status;
- seeking treatment for STIs;
- condom use; and
- prevention and treatment of opportunistic infections.

Methods

The Institutional Ethical committee of St. John's Academy of Health Sciences, Bangalore approved the study.

A cross-sectional study was conducted in three districts of Karnataka; one north (Belgaum), one south (Hassan), and

one central (Bellary). The study period was from March to September 2010.

Stratified random sampling was adopted to select participants for the study. Stratification was done between men and women to have an equal representation in the sample. Since we do not have a baseline estimation of the proportion of people practicing positive prevention, we have assumed 50% of PLHIV as adhering to the practices. By taking 80% of power of test, at 95% confidence limits, a sample size of 384 was calculated. An additional 20% of the sample was included to overcome samples losses that could be due to deaths, migration or wrong addresses. Finally we have included 477 participants in the study. Orphaned and vulnerable children (0–17 yrs) were excluded, as the study aspects involve knowledge of STIs and condom use.

A structured interview schedule was used for data collection. The tool consists of sections on capturing information related to personal details, disclosure of status, seeking treatment for STIs, condom use and prevention and treatment of opportunistic infections. We also included questions on PLHIV enrolment in any of the social support networks (care and support services), in order to explore the differences in positive prevention practices

Selected PLHIV community interviewers were oriented on the protocols of the study including subject enrolment procedures, consent process and the instrument. The tool was pilot tested in all the study sites, after which the changes were incorporated before using the tool in the main study. Interviews took place, after obtaining the informed consent of the participants to participate in the study, in a private space, as preferred by the participant ensuring auditory and visual privacy as well as confidentiality.

Data analysis was done using SPSS software applying appropriate statistical tests of significance.

Results

A total of 338 PLHIV were contacted during the study period. With a response rate of 83.7%, 283 PLHIV (men 144, women 139) participated in the study.

Sociodemographic characteristics

The mean age of participants was 34.5 years (male 35.6yrs; female 32.8yrs); 52% were in contact with a care and support programme in the last year; 70% were residing in rural areas and 39.6% had no formal education.



Table 1: Details of participants included from three sites of the study

	Belgaum	Hassan	Bellary	Total
Not agreed	17	7	31	55
Death	16	4	14	34
Migration	20	15	4	39
Interviewed	98	135	50	283
Wrong address	15	10	41	66
Total	166	171	140	477

Disclosure of status (to other than doctor and counsellor)

The majority of PLHIV reported having disclosed their status (86.9%) to either a family member or a friend. Most of them said that they revealed their status first to one of their family members (84%). Status disclosure was less among urban residents (70%) when compared to rural residents (87.9%) and this difference was found to be statistically significant ($p < 0.05$).

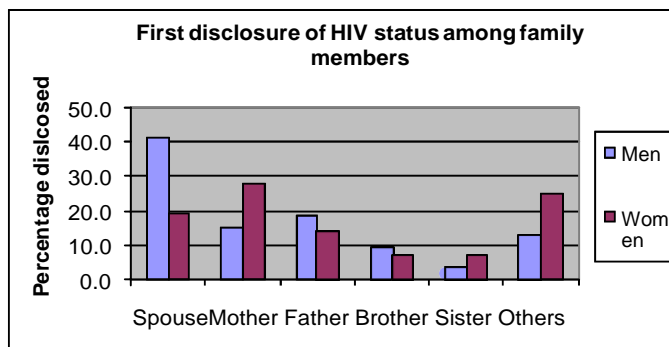
Table 2: Educational status of participants

Educational status	N	%
No formal education	112	39.6
Primary education	88	31.1
Secondary education	67	23.7
Graduate	14	4.9
Post-graduate	2	0.7

Table 3: Marital status of participants

Marital status	N	%
Single	39	13.8
Married	143	50.7
Separated	6	2.1
Divorced	3	1.1
Widow	85	30.1
Others	5	1.8

Graph 1: HIV status disclosure among family members:

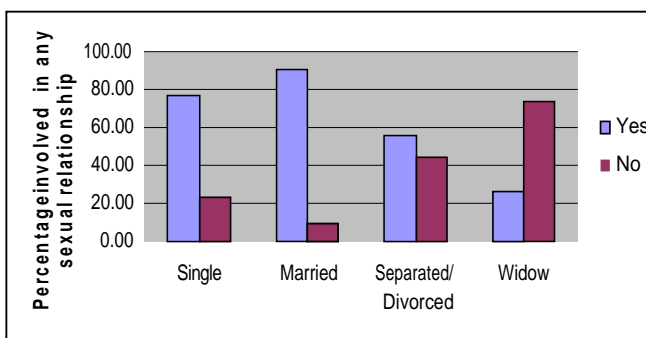


Within the family, the majority revealed their status first to their spouse (25.1%), followed by mother (18%) and father (13.4%). Men most frequently disclosed their status first to their spouse (41.2%), whereas women most frequently disclosed their status first to their mothers (27.8%) (see Graph 1).

Sexual relationship

Out of the overall respondents 67% were currently involved in a sexual relationship; 77% of the unmarried and 25.9% of the widowed respondents were involved in a sexual relationship (Graph 2). Among unmarried PLHIV men, 80.6% were presently involved in a sexual relationship. The sample contained only six unmarried women, out of them, five were involved in a sexual relationship.

Graph 2: Sexual relationship in different groups of marital status



Seeking treatment for STI

In the past year, 24% reported having had an STI. Almost all of those who had experienced an STI (96.9%) accessed treatment, but only 66.2% completed treatment for that particular STI. Among those who accessed the treatment for their STI, 80.9% of them accessed the treatment from government health facilities.

Knowledge of STIs among women was good (94.8%) compared to men (51.1%), but women (36.3%) experienced more STIs compared to men (14.7%). Knowledge of STIs among unmarried men and women was less compared to

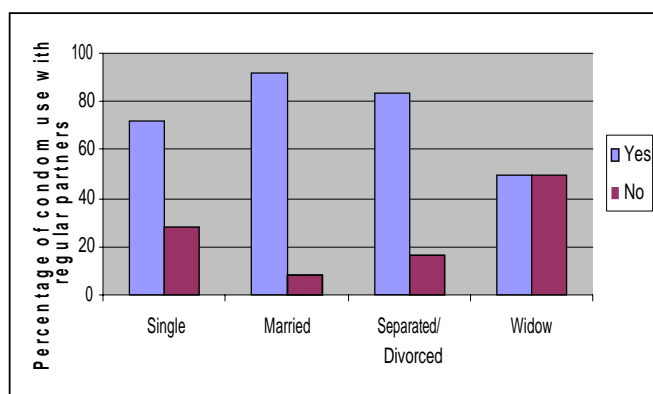


any other groups (69.4% were not aware of STIs). PLHIV who were in touch with care and support project services had better knowledge of STIs (59.9%) compared to those who were not (40.1%), which is found to be statistically significant ($p < 0.05$).

Condom use

Response rates for condom-related information was 72%. The majority of respondents (92.1%) reported that they were aware of condoms, and 82.8% said that they use condoms with their regular partners. It was observed that 50% of the widowed and 28.1% of the unmarried who were presently involved in a sexual relationship reported no condom use with their regular partners (see Graph 3).

Graph 3: Condom use with regular partners in different groups of marital status:



When we considered the level of education, 25.7% of those who do not have a formal education also do not use condoms with their regular partners even though most of them (86.6%) have knowledge about appropriate condom use. Knowledge of condom use, and condom use with regular partners did not seem to have any differences in relation to status disclosure.

Health education from peer outreach workers on STI/opportunistic infections/condom use

Those who were in constant touch with any care and support project services received more messages of condom use/STI/OI from peer outreach workers as compared to others who received more messages from doctors and counsellors. Knowledge of condom use/STI/OI was found to be similar among both groups, apart from the difference in condom use with regular partners; i. e. those who were contacted by peers reported a higher level of consistent condom use (86.4%) with their regular partners, when compared to their counterparts (78.2%), and this difference was found to be statistically significant ($P < 0.01$).

Opportunistic Infections (OI)

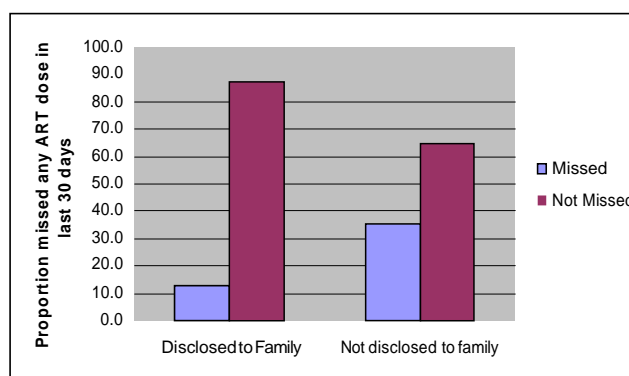
Overall, 27% of men and 36.1% of women had experienced any OI in the last year. Among them, 86.5% of men and 93.8% of women accessed and completed treatment. A further 84.5% of PLHIV were aware of OI (88% of men;

81.6% of women) and almost all of them were even aware that OIs could be treated and prevented with drug prophylaxis.

Anti Retro Viral Therapy (ART)

Of the participants 62% were on ART, among them 15.6% reported that they have missed at least one dose of medicine in the last 30 days, this was similar by sex and place of residence. The proportion of those who missed any dose in the last one month was found to be high among those who have not disclosed their status to their family members (35.3%) while compared to those who have disclosed to their family members (12.7%) (see Graph 4), and this difference was found to be statistically significant ($P < 0.05$).

Graph 4: Missing of ART doses depending upon disclosure of status in family



When we studied CD4 testing, only 36% of respondents had undergone CD4 count testing in the last six months (39% of urban PLHIV; 34% of rural PLHIV). Stratification was done between men and women to have an equal representation in the sample and there was little difference in CD4 testing and missing of ART drugs in relation to PLHIVs' contact with care and support project services.

Discussion

This study was undertaken to understand the different aspects of positive prevention practices among PLHIV with specific focus on disclosure and acceptance of one's own status, treatment seeking for STIs, condom use and seeking healthcare for OIs. We have found that the majority of men disclosed their status first to their spouse, whereas the majority of women disclosed their status first to their mothers, this could be due to the greater confidence and trust of married women in their mothers than husbands and in-laws. Similar findings were reported by earlier studies that the decisions on status disclosures within families are complex;^{4,5} and are often focused on maintaining trust and honesty in relationships.⁶ PLHIV who are unable to disclose their status to family, friends, and others in their social networks have been found to have less social support, fewer coping resources and experience greater emotional



distress than the individuals who are able to disclose their HIV status.⁷

Even though women have a better knowledge of STIs when compared to men, they reported having had STIs more than men. The greater vulnerability of women to STI may be attributable to poor condom negotiation skills and power relations in the society. This needs further exploration through qualitative research.

We have found that most of the PLHIV who experienced STI, accessed treatment from government health facilities. Also, the majority of the PLHIV who were in touch with care and support project services (75%) availed treatment from government health facilities. This could be due to mainstreaming activities of STI/HIV care and support services with health systems in the study areas, where most of the PLHIV care and support services are offered in primary healthcare centres. The World Health Organization includes STI prevention and control as a priority intervention in its five-year HIV/AIDS plan for scaling up towards universal access and STI control among PLHIV.⁸ Prompt and correct STI management can improve survival for PLHIV. Therefore, STI prevention interventions for PLHIV may help them to sustain healthy behaviour practices and prevention of transmission of infections.⁹ Poor compliance with completing full courses of treatment among the studied population needs to be further studied and improved for prevention of infections.

In the studied population we have found that knowledge on STIs among unmarried men and women was low, despite the relatively higher proportion. Stratification was done between men and women to have an equal representation in the sample of them being involved in sexual relationships, and they reported no condom use with their regular partners. This shows that this particular group needs a higher priority in prevention interventions.

PLHIV who do not have a formal education, even if they have knowledge of condom use, reported no condom use with their regular partners. This indicates the importance of improvising our strategies to overcome barriers that inhibit translation of knowledge into practice. In this study we have found the same level of knowledge of condom use between those who were in touch with peer outreach workers and those who were not; but a higher level of condom use with regular partners was reported by those who were in touch with peer outreach workers, which indicates that the effectiveness of messaging converting knowledge into the practice of condom use with regular partners is high when messages are communicated through peers.

Knowledge on the prevention and treatment of opportunistic infections helps PLHIV to live longer, be healthier and also helps prevent transmissible opportunistic infections from spreading to others.¹⁰ In this study, knowledge on this aspect was found to be fairly good among PLHIV. But regular CD4 testing and ART adherence was found to be low, where disclosure among family

members is identified as an important factor, which can help PLHIV for ART adherence.

Conclusion

Unmarried men and women living with HIV need to be prioritised in our prevention efforts, to help them adopt safe sex practices. Innovative peer strategies to reach them at the earliest opportunity with prevention measures should be focused on. Widows and separated women are also vulnerable groups that should be prioritised. The specific barriers and challenges that these women face should be further explored.

Peer mediated strategies seemed to have made a difference in relation to increased knowledge and condom use with regular partners. As status disclosure with family members has an important role in adhering to ART, gaps in status disclosure among urban PLHIVs have to be addressed through innovative strategies.

Compliance for STI treatment needs to be improved. Even with good knowledge of STIs, women are more vulnerable to STIs compared to men, which has to be further explored to understand the specific barriers. This study highlights the fact that certain profiles of PLHIV are at greater risk than others informing care and support programmes of the need to be more focused and strategic in order to maximise the impact of positive prevention.

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PEER REVIEW

Not commissioned. Externally peer reviewed.

CONFLICTS OF INTEREST

The authors declare that they have no competing interests.

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ETHICS COMMITTEE APPROVAL

Institutional Ethical committee of St. John's Academy of Health Sciences, Bangalore approved the study.