

ORIGINAL ARTICLE pISSN 0976 3325 | eISSN 2229 6816 Open Access Article **∂** www.njcmindia.org

PREVALENCE AND GENDER EFFECT ON SEXUAL RISK BEHAVIOR AMONG HETEROSEXUAL PEOPLE LIVING WITH HIV/AIDS IN DAVANGERE, KARNATAKA

Shubha B Davalgi¹, Navinkumar Angadi¹, Navneet Kaur Sandhu²

Financial Support: None declared **Conflict of interest**: None declared **Copy right**: The Journal retains the copyrights of this article. However, reproduction of this article in the part or total in any form is permissible with due acknowledgement of the source.

How to cite this article:

Davalgi SB, Angadi N, Sandhu NK. Prevalence and Gender Effect on Sexual Risk Behavior among Heterosexual People Living With HIV/AIDS in Davangere, Karnataka. Ntl J Community Med 2015; 7(1):49-53.

Author's Affiliation:

¹Assistant professor; ²Post graduate, Department of Community Medicine, JJM Medical College, Davangere

Correspondence:

Dr. Shubha B Davalgi Email: shubhadavalgi@gmail.com

Date of Submission: 14-01-15 Date of Acceptance: 30-01-16 Date of Publication: 31-01-16

ABSTRACT

Background: In developing country like India, increased access to anti-retroviral therapy for people living with HIV/AIDS (PLWHA) has extended life span and reduced morbidity and mortality and also enabled several of them to resume their sexual activity. Our study aims to know the prevalence and predictors of sexual risk behaviour among heterosexual PLWHA attending HIV clinic at a tertiary care teaching hospital.

Methods: It was a cross-sectional study, conducted among 103 PLWHA [52 women and 51men] attending HIV clinic at a tertiary care teaching hospital, after getting informed written consent.

Results: Among 103 study participants 64 (62%) were alcoholics and majority (65%) of them showed sexual risk behaviour. 55% of males and 69% of females had disclosed the HIV status to their partners. 47% engaged in sexual risk activity with the partners, it was more among males [56.9%]. Significant association was found between sexual risk behaviour and those engaging in multiple sexual partner (p = 0.01), unmarried (p = 0.001) and frequency of condom use among multiple sexual partners (p = 0.03).

Conclusions: The study revealed 62% PLWHA disclosed their HIV status to their partners and prevalence of sexual risk behaviour was found to be 47% and it was more among males.

Key Words: Sexual risk behaviour, People Living with HIV/AIDS (PLWHA), Heterosexual.

INTRODUCTION

India has the third highest number of estimated people living with HIV in the world¹. According to the National AIDS Control Organisation (NACO) annual report 2013-14 the estimated number of people living with HIV/AIDS in India in 2012 was 20.89 lakh, with an estimated adult (15-49 age group) HIV prevalence of 0.27% in 2011¹. The HIV epidemic continues to be hetero-

genic in geographical spread and across different typologies.¹

In developed countries many PLHIV After knowing their HIV status adopt safer sex practices to avoid HIV transmission to their sexual partners, but still one in three PLHIV continues to practice high risk sexual behaviour often with partners of unknown or HIV-negative serostatus²⁻⁸. Sexual risk behavior is defined as behavior that increases one's risk of contracting sexually transmitted infections and experiencing unintended pregnancies and these include having sex at an early age, having multiple sexual partners, having sex while under the influence of alcohol or drugs, and unprotected sexual behaviors⁹.

Many studies done in past have looked at sexual risk behaviour among female sex workers, migrants, injecting drug users, Men Who Have Sex With Men (MSM), prisoners¹⁰⁻¹⁴. As an increasing public health problem, our study seeks to find the prevalence and effect of gender on sexual risk behavior among PLWHA.

METHODOLOGY

It is a hospital based Cross-sectional study conducted from 1st April to 30th September 2013 among heterosexual PLWHA attending HIV clinic at a tertiary care teaching hospital, Davangere. Data collection from PLWHA was started after getting institutional ethical review board clearance. Total 103 PLWHA [52 women and 51 men] attending HIV clinic who gave informed written consent were included in the study. Study participants were interviewed using predesigned, pre-tested, semi-structured questionnaire. The current study examines sociodemographic, and behavioural factors associated with being sexually active. The operational definition of 'sexual risk behaviour' used in the study was those involved in any of the following activities - engaging in high risk sexual behaviour including having multiple sexual partners, having sex while under the influence of alcohol or drugs, and unprotected sexual behavior.

Data collected was analysed using SPSS v17.0 and presented in the form of descriptive statistics (means, proportions, percentages). Chi square test was employed and P value of <0.05 was considered statistically significant.

The study was approved by the Institutional Ethical Review Board.

RESULTS

Among 103 study participants 50% were women, 61% were urban residents, 38% were illiterate and 84% were > 30 years old. Majority of men were in age group 29 – 38 years, with mean age 33 ± 1.8 years and females 28 ± 0.7 years. Among female study participants, 40% were illiterates. Majority of the respondents were from urban (59%) belonging to Hindu religion (60%). Among males 28 (55%) were alcoholics and among females 36 (69%).

Table 1: Socio-demographic profile of studyparticipants

Male(%)	Female(%)	Total(%)
N=51	N=52	N=103
	7 (14)	16 (16)
16 (31)	16 (31)	32 (31)
12 (24)	16 (31)	28 (27)
3 (05)	11 (20)	14 (14)
11 (22)	2 (04)	13 (12)
18 (35)	21 (40)	39 (38)
12 (23)	21 (40)	33 (32)
15 (30)	8 (16)	23 (22)
	• •	08 (8)
22 (43)	20 (38)	42 (41)
29 (57)	32 (62)	61 (59)
. ,	. ,	
27 (52)	34 (65)	61 (60)
		13 (12)
	• •	09 (9)
• •	• •	20 (19)
36 (71)	13 (25)	49 (48)
		54 (52)
~ /	~ /	~ /
28 (55)	36 (69)	64 (62)
		39 (38)
	N=51 9 (18) 16 (31) 12 (24) 3 (05) 11 (22) 18 (35) 12 (23) 15 (30) 6 (12) 22 (43)	N=51N=529 (18)7 (14)16 (31)16 (31)12 (24)16 (31)3 (05)11 (20)11 (22)2 (04)18 (35)21 (40)12 (23)21 (40)15 (30)8 (16)6 (12)2 (4)22 (43)20 (38)29 (57)32 (62)27 (52)34 (65)6 (12)7 (14)4 (07)5 (09)14 (29)6 (12)36 (71)13 (25)15 (29)39 (75)28 (55)36 (69)

Table 2: Disclosure of HIV status and sexualrisk behavior among PLWHA

Disclosed HIV	Risk beha	Total	
positive status	Yes (%)	No (%)	
Yes	26 (54)	38 (69)	64 (62)
No	22 (46)	17 (31)	39 (38)
Total	48	55	103

Chi-square (p value): 1.83 (0.1761)

Table 3: Reasons for unprotected sexual practices

Reasons	Males	Females	total
	(n=51)	(n=52)	
No knowledge of condom	8 (15.7)	12 (23.1)	10
Use			
Didn't have condom then	49 (96.1)	17 (32.7)	33
Too inconvenient	28 (54.9)	17 (32.7)	22
Doesn't like condoms	31 (60.8)	12 (23.1)	21
Self/partner wanted to get	28 (54.9)	12 (23.1)	19
pregnant			
Partner insisted on not using	g 16 (31.4)	12 (23.1)	14

Figure in parenthesis indicate percentage

Table 4: Type of sexual partner and frequency of condom use

Characteristics	Males	Females	Total	Chi-square (p value)
Sexual partner	N=51 (%)	N=52 (%)	N=103 (%)	
Regular/ single	18 (35.3)	31 (59.6)	49 (47.6)	5.17 (0.01)*
Casual/Multiple	33 (64.7)	21 (40.4)	54 (52.4)	· · ·
Condom use among regular sexual partners	N=18 (%)	N=31 (%)	N=49 (%)	
Always	14 (78)	22 (71)	36 (73.5)	0.03 (0.8625)
Sometimes	04 (22)	09 (29)	13 (26.5)	, , , , , , , , , , , , , , , , , , ,
Condom use among multiple sexual partners	N=33 (%)	N=21 (%)	N= 54 (%)	
Always	08 (24)	11 (52)	19 (35)	3.31 (0.03)*
sometimes	25 (76)	10 (48)	35 (65)	

*p < 0.05 = statistically significant

Table 5: Percentage	of reasons	given for	using condon	ns [multiple	answers]
		0		I L	

Reasons	Males (n=51)	Females (n=52)	Total
Protection against infection	49 (96.1)	34 (64.2)	83 (80.6)
Advice from health worker	42 (82.4)	46 (86.8)	88 (85.4)
Did not want to get pregnant	8 (15.7)	18 (34.0)	26 (25.2)
Partner insisted on using	16 (31.4)	28 (52.8)	44 (42.7)

Figure in parenthesis indicate percentage

Table 6: Sexual risk behavior among PLWHA

Reasons	Males (%)	Females (%)	Total (%)	p value
Sexual risk behaviour	N= 51	N= 52	N= 103	
Present	29 (57)	19 (36.5)	48 (47)	0.06
Absent	22 (43)	33 (63.5)	55 (53)	
Sexual risk behaviour among unmarried	N = 36 (%)	N = 13 (%)	N = 49 (%)	
Yes	28 (78)	03 (23)	31 (63)	0.001*
No	08 (22)	10 (77)	18 (37)	
Sexual risk behaviour among alcoholics	N = 28 (%)	N = 36 (%)	N = 64 (%)	
Yes	12 (43)	32 (89)	44 (69)	< 0.001*
No	16 (57)	04 (11)	20 (31)	

*p < 0.05 = statistically significant

Total 28 (55%) males and 36 (69%) females had disclosed their status to their partners. Among those who disclosed their HIV status to their partner/s, 26 [41%] of them were practicing sexual risk behavior and the association between disclosure of HIV status and risk behavior was not found significant [p= 0.1761].

Majority of the study population gave reason for not practicing safe sex as unavailability of condom (34) or not convenient (23). Knowledge about importance of regular use of condoms was very poor (10%). There was significant association between poor knowledge and sexual risk behaviour (p < 0.001).

Among regular partners 36 (73.5%) and among casual partners 19 (35%) were using condoms. 28 [52%] of PLWHA told they did not use condom during their recent sexual activity.

In the present study 48 (47%) PLWHA were engaged in sexual risk behaviour, it was more among males [57%]. Sexual risk behaviour was high among alcoholics (69%) and unmarried (63%).

DISCUSSION

In the present study prevalence of sexual risk behaviour was found to be 47% and similar finding was observed in the study by Geoffrey Musinguzi et al¹⁵ (46%). Our study result is higher than study conducted by Francis Bajunirwe et al¹⁶ (men-25.9% and women-22.1%), Susan M et al¹⁷ (30%), Joseph P. McGowan et al¹⁸(29%), Ramesh K et al¹⁹ (33%) and lower than study by study by Olley BO et al²⁰ (54.4%).

In the present study 62% of study participants reported that they had disclosed their HIV status which is higher than study by N.M. NCUBE et al^{21} (86%), Geoffrey Musinguzi et al^{15} (89%). In **∂** Open Access Journal | www.njcmindia.org

the study by TR Clarke et al 22 51% had disclosed their status.

In our study 65% alcoholics showed sexual risk behavior and almost similar finding was observed by Geoffrey Musinguzi et al¹⁵ (69%). In the present study nearly half of study participants were using condoms and similar finding was observed by Geoffrey Musinguzi et al¹⁵ (54%). Our study result is higher than study conducted by Ramesh K et al¹⁹ (37%). Our study result is lower than study conducted by Dia A et al²³ (65%), Francis Bajunirwe et al¹⁶ (75.6%) and Sphiwe Madiba et al²⁴ (75.8%).

In the present study Advise from the health workers and to get protected from pregnancy were he reasons for using condoms. In the study by N.M. NCUBE et al²¹ it is found that participants who were widows or divorcees, who had experienced HIV symptoms , who had other sex partners and who had disclosed their HIV status were reasons for condom use among participants.

In the present study factors like type of sexual partner, marital status and frequency of condom were significantly associated with sexual risk behaviour.In the study conducted by Geoffrey Musinguzi et al¹⁵ alcohol consumption, HIV status of regular sexual partner, and having received counselling on protecting self from other HIV strains were significant predictors of high risk behaviour. In the study by Francis Bajunirwe et al¹⁶ alcohol consumption and unknown serostatus of partner were significant predictors of high-risk sexual behavior.

CONCLUSION

From the study we conclude that sexual risk behavior was present in almost half of the PLWHA, more so in male and alcoholic. Still 4 out of 10 PLWHA had not disclosed their HIV status to their partners. Sexual behaviors found more risky in PLWHA having multiple sex partners and unmarried.

RECOMMENDATION

People living with HIV/AIDS can stay for long period of time without any serious sickness if they accessing healthcare. The importance of consistency of condom use is very much a necessity to prevent complications and re-infection among PLWHA. The program should examine different approaches to obtaining higher and more consistent levels of condom use among PLWHA.

Acknowledgment: We are thankful to all participants for their kind co-operation. I also thank my colleagues, post graduate students for their support during the course of the study.

REFERENCES

- 1. National AIDS Control Organisation (NACO). Annual Report 2013-14. Department of AIDS Control Ministry of Health & Family Welfare Government of India. Available from www.naco.gov.in/.
- De Rosa CJ, Marks G. Preventive counselling of HIVpositive men and self-disclosure of serostatus to sex partners: New opportunities for prevention. Health Psychol. 1998; 17:224–31.
- 3. Marks G, Burris S, Peterman TA. Reducing sexual transmission of HIV from those who know they are infected: The need for personal and collective responsibility. AIDS. 1999; 13:297–306.
- 4. Schiltz MA, Sandfort ThGM. HIV-positive people, risk and sexual behaviour. Soc Sci Med.2000; 50:1571–88.
- Kalichman SC. HIV transmission risk behaviors of men and women living with HIV-AIDS: Prevalence, predictors and emerging clinical interventions. Clin Psychol. 2000; 7:32–47.
- Crepaz N, Marks G. Towards an understanding of sexual risk behavior in people living with HIV: A review of social, psychological, and medical findings. AIDS. 2002; 16:135–149.
- Elford J, Ibrahim F, Bukutu C et al. Sexual behaviour of people living with HIV in London: Implications for HIV transmission. AIDS. 2007; 21(Suppl 1):S63–S70.
- Ridge D, Ziebland S, Anderson J, et al. Positive prevention: Contemporary issues facing HIV positive people negotiating sex in the UK. Soc Sci Med. 2007; 65:755–770.
- Centers for Disease Control and Prevention (2010). Youth Risk Behavior Surveillance-United Sates, 2009. MMWR, 59 (No.SS-5):1-142. Available from http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5 905a1.htm.
- 10. Eluwa GI, Strathdee SA, Adebajo SB, et al. Sexual risk behaviors and HIV among female sex workers in Nigeria. Journal of Acquired immune deficiency syndromes 2012;61(4):507-14.
- 11. Ravi K. Verma, Niranjan Saggurti, Ajay K. Singh, et al. Alcohol and Sexual Risk Behavior among Migrant Female Sex Workers and Male Workers in Districts with High In-Migration from Four High HIV Prevalence States in Indi.AIDS and Behavior 2010; 14, (1): 31-39.
- 12. Chikovani I, Goguadze K, Bozicevic I, et al. Determinants of risky sexual behavior among injecting drug users (IDUs) in Georgia. AIDS and Behavior 2013;17(5):1906-13.

- Folch C, Muñoz CR, Zaragoza K, Casabona J. Sexual risk behaviour and its determinants among men who have sex with men in Catalonia, Spain. Eurosurveillance 2009; 14 (47):1-7
- Audu O, Ogboi SJ, Abdullahi AU, et al. Sexual Risk Behaviour and Knowledge of HIV/AIDS among Male Prison Inmates in Kaduna State, North Western Nigeria. International Journal of TROPICAL DISEASE & Health 2013; 3(1): 57-67.
- 15. Geofrey Musinguzi, Denis Bwayo, et al. Sexual Behavior among Persons Living with HIV in Uganda: Implications for Policy and Practice. PLOS ONE 2014;9(1):1-10.
- 16. Francis Bajunirwe, David R Bangsberg, Ajay K Sethi. Alcohol use and HIV serostatus of partner predict highrisk sexual behavior among patients receiving antiretroviral therapy in South Western Uganda. BMC Public Health 2013;13:1-7.
- Susan M Kiene, Sarah Christie. Sexual Risk Behaviour among HIV-Positive Individuals in Clinical Care in Urban KwaZuluNatal, South Africa. CHIP Documents Center for Health, Intervention, and Prevention (CHIP) 2006; 1-16.
- Joseph P McGowan, Sanjiv S. Shah Camelia E. et al. Risk Behavior for Transmission of Human Immunodeficiency Virus (HIV) among HIVSeropositive Individuals in

an Urban Setting. Clinical Infectious Diseases 2004; 38 (1):122-27.

- Ramesh K, Sangeetha Gandhi, Vishwas Rao. Sexual Behaviors among HIV patients attending ART centre, tertiary care hospital, Karnataka, India. International Journal of Current Research and Review 2013; 5(4):103-12.
- 20. Olley BO, Seedat S, Gxamza F, et al. Determinants of unprotected sex among HIV-positive patients in South Africa. AIDS Care2005; 17(1):1-9.
- 21. Ncube NM, Akunna J, Babatunde F, et al. Sexual risk behaviour among HIV-Positive persons in Kumasi, Ghana. Ghana Medical Journal 2012; 46(1):27-33.
- 22. Clarke TR, Gibson R, Barrow G, et al. Disclosure of HIV status among HIV Clinic attendees in Jamaica. West Indian medical journal 2010; 59 (4): 445-49.
- 23. Dia A, Marcellin F, Bonono RC, et al. Prevalence of unsafe sex with one's steady partner either HIVnegative or of unknown HIV status and associated determinants in Cameroon. Sexually transmitted infections 2010; 86 (2):148-54.
- 24. Sphiwe Madiba, Beverley Letsoalo. Disclosure, Multiple Sex Partners, and Consistent Condom Use among HIV Positive Adults on Antiretroviral Therapy in Johannesburg, South Africa. World Journal of AIDS 2014: 4: 62-73.