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Research Article

CROSS-SECTIONAL ANALYSIS OF SEXUAL ORIENTATION & BEHAVIOR OF PATIENTS DIAGNOSED WITH HIV AT A TERTIARY CARE HOSPITAL

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Abstract:

Background: Human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS) is one of the major public health problems throughout the world and prevention with a positive approach has been advocated as one of the main strategies to diminish the new instances of HIV and the target are those who are engaged in high-risk sexual behavior. Therefore, understanding the risky behaviors of the HIV-infected individuals which are unique to differing populations would improve public health interventions.

Objective: To identify the sexual orientation and behavior (high-risk) of patients diagnosed with HIV.

Methodology: This cross-sectional analysis conducted upon a sample of 120 patients (aged 18 years and above) tested positive for and receiving antiretroviral treatment in a tertiary care hospital at Karachi. No gender bias was observed and the sample was collected using non-probability, consecutive sampling. Data was collected using a pre-structured, interview based questionnaire comprising of inquiring regarding basic biodata and sociodemographic details along with history and complete particulars of their self-perceived sexual orientation and detailed sexual behavior. The data obtained was analyzed using SPSS v.21 & Microsoft Excel 360.

Results: Among the 120 patient enrolled into the study, we achieved a 100% response rate. 77.5% of the respondents were males while the remaining 22.5% were females. The mean age of the sample stood at 26 (SD ± 5.1). A majority of the respondents (59.2%) identified as heterosexual, while the remaining identified broadly as homosexual (26.6%) or bisexual (14.2%). High risk sexual behavior was more prevalent in the non-heterosexual groups. Among the different types of high-risk behavior, the respondents admitted to having, were unprotected coitus, anal coitus, multiple sexual partners, high-risk partners (ones that themselves had multiple partners or were drug abusers). Respondent age, gender, marital status and orientation were strongly associated with their high risk behavior.

Conclusion: After careful consideration, it can be concluded that high-risk behavior of HIV patients is a major public health concern and patients need to be effectively counselled against it.

Keywords: HIV, AIDS, Sexual Orientation, High-Risk Behavior and Drug Abuse.

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INTRODUCTION:

HIV/AIDS is no more just a regular health problem; it has become a threat to the life of millions of people. Around 90% of the AIDS victims are living in the developing countries where the incidence rate is aggravated by poverty, hunger, disease, lack of medical facilities, illiteracy and under-development. [1]

Pakistan, a developing country, is situated between HIV/AIDS high risk countries, India on the east, China in the north, and Afghanistan on the west. For many decades, Pakistan to a large extent has managed to remain relatively protected from the spread of AIDS. Despite the spurt of new cases that emerged in Sindh, it is still identified as a low-prevalence but high-risk country for the spread of HIV infection. [2]

By the end of 2000, a total of 1549 HIV positive and 202 AIDS cases had been reported; by December 2002 the number had risen to 1,998. In 2003, the Global Surveillance of HIV/AIDS and sexually transmitted infections (STIs), a joint effort of WHO and UNAIDS yielded worrying information. It estimated HIV/AIDS positive adults aged 15-49 years in Pakistan to be 73,000, 8,900 being women. The estimated AIDS deaths were cited as 4,900. [3, 4]

The mode of HIV/AIDS transmission in Pakistan is largely heterosexual (52.55%), contaminated blood or blood products (11.73%) are the most commonly reported modes of transmission. Other modes of transmission include IDU - injecting drug use (2.02%), male-to-male or bisexual relations (4.55%), mother-child transmission (2.2%). However, a very large percentage of transmission is of undetermined origin (26.9%). In this background the indolent stage of disease may convert to an epidemic stage at any time, as has happened in other countries. [5, 6]

Pakistan is a vulnerable country, with increasing levels of poverty, low levels of literacy, especially in women; low levels of condom use, low levels of awareness among health workers; a large mobile population including refugees in border areas, internal and external migrants, long-distance truck drivers known to engage in sexual practices that put them at risk of contracting HIV and sexually transmitted infections (STIs). [7, 8]

Additional problems such as social and economic disadvantages, particularly for women and girls, a

booming commercial sex industry and widespread indulgence in commercial sex with low levels of condom use; unsafe medical injection and health care practices, extensive use and reuse of syringes without sterilization, including an increasing rate of needle-sharing among estimated 60,000 drug users; and a large proportion of young people with low levels of knowledge about HIV transmission and prevention, make the scenario very gloomy. Adding high-risk behavior of HIV patients to the situation spells more trouble than can be afforded. [9, 10]

Keeping that in mind, a fundamental approach is now shifting. Until recently, the worldwide focus of HIV prevention effort was largely on people uninfected with HIV/AIDS, and the sexual behavior of HIV-infected persons did not receive any serious attention for a variety of reasons, including the fact that initially, a diagnosis of HIV infection counted as a death sentence. In that context, the sexual life of those infected persons seemed a secondary issue, which made prevention focused on sexual behavior hard to imagine. Furthermore, the conviction that stigmatization should be avoided also precluded an interest in the sexual behavior of HIV-infected persons. [11, 12] Thus insight into high risk behavior of HIV patients is much needed.

METHODOLOGY:

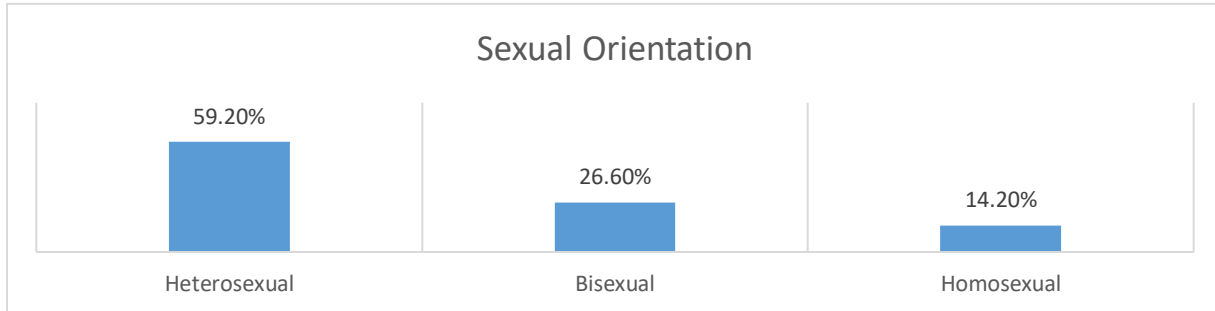
This cross-sectional analysis conducted upon a sample of 120 patients (aged 18 years and above) tested positive for and receiving antiretroviral treatment in a tertiary care hospital at Karachi. No gender bias was observed and the sample was collected using non-probability, consecutive sampling. Data was collected using a pre-structured, interview based questionnaire comprising of inquiring regarding basic biodata and sociodemographic details along with history and complete particulars of their self-perceived sexual orientation and detailed sexual behavior. The data obtained was analyzed using SPSS v.21 & Microsoft Excel 360.

RESULTS:

Among the 120 patient enrolled into the study, we achieved a 100% response rate. 77.5% of the respondents were males while the remaining 22.5% were females. The mean age of the sample stood at 26 (SD \pm 5.1).

Age Group	Males; n (%)	Females; n (%)
Up to 20 years	2 (1.67%)	0 (0%)
21 to 30 years	41 (34.17%)	9 (7.5%)
31 to 40 years	37 (30.83%)	13 (10.83%)
41 years and above	13 (10.83%)	5 (4.17%)

A majority of the respondents (59.2%) identified as heterosexual, while the remaining identified broadly as homosexual (26.6%) or bisexual (14.2%).



High risk sexual behavior was more prevalent in the non-heterosexual groups. Among the different types of high-risk behavior, the respondents admitted to having, were unprotected coitus, anal coitus, multiple sexual partners, high-risk partners (ones that

themselves had multiple partners or were drug abusers). Respondent age, gender, marital status and orientation were strongly associated with their high risk behavior.

Age (Years)	Sexual Orientation	Un - protected Coitus	Anal Coitus	Multiple Sexual Partners	High Risk Partners	No High Risk Behavior
≤ 20	Heterosexual	-	-	-	-	-
	Bisexual	-	-	1	-	-
	Homosexual	-	1	-	-	-
21 - 30	Heterosexual	12	-	3	6	3
	Bisexual	9	1	5	2	1
	Homosexual	1	4	2	1	-
31 - 40	Heterosexual	9	-	5	13	4
	Bisexual	4	1	3	4	-
	Homosexual	-	5	-	2	-
≥ 41	Heterosexual	7	-	3	4	2
	Bisexual	1	-	-	-	-
	Homosexual	-	1	-	-	-

Gender	Marital Status	Un - protected Coitus	Anal Coitus	Multiple Sexual Partners	High Risk Partners	No High Risk Behavior
Male	Unmarried	14	8	9	7	1
	Married	9	1	8	6	3
	Separated	6	4	3	1	3
Female	Unmarried	5	-	1	3	-
	Married	4	-	1	4	2
	Separated	3	-	-	1	3

DISCUSSION:

Currently, limited studies are available in the context of Pakistan that may relate to the high-risk sexual behavior of patients diagnosed with HIV. This study therefore aimed to explore the spectrum, prevalence and determinants of high-risk sexual behavior among the HIV patients. [13]

In our study, a majority of the respondents were sexually active. This finding is comparable with that reported by Yaya *et al.* [14] in Togo (74.6%), and Bajunirwe *et al.* [15] in Uganda (51.4%). Furthermore, most of the respondents that were sexually active, also indulged high risk sexual behavior. A large proportion (41.67%) of the sexually active HIV patients were having un-protected sex with a partner of negative or unknown HIV status. Our finding showed a high prevalence of risky sexual behavior similar to studies [116 - 20] in other developing countries. This poses a risk of spread of HIV infection in the general population.

Mhalu *et al.* [21] opined that spousal support plays a significant role in reducing behavior for multiple sexual partner and secondary abstinence following HIV diagnosis. Similarly, this study also showed that respondents who were married, significantly had lower high-risk sexual behavior. This shows there is a need to take intervention measures to enhance spousal support to patients.

The findings of this study must be interpreted in light of its limitations. The study was conducted at only one site in the country among the newly diagnosed patients; the findings may not be generalizable to other clinical settings. Furthermore, since the study conducted was cross-sectional, causal inferences cannot be made. Second, issues discussed are quite personal. Thus, any self-reported measures are subject

to recall bias including deliberate concealment. Although significant. This might be because the estimates are based on the number of participants enrolled in the study included in the study. More precise results could be obtained by increasing the sample size.

CONCLUSION:

After careful consideration, it can be concluded that high-risk behavior of HIV patients is a major public health concern and patients need to be effectively counselled against it.

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