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Knowledge, Attitudes and Practices of Male Transgenders in Transmission of Human Immunodeficiency Virus in Lahore, Pakistan

Akash John^{1,2}, Muhammad Saleem Rana², Asif Hanif², Tallat Anwar Faridi², Sofia Noor², Sana Zahid², Serena Taj²

¹Lecturer, University Institute of Radiological Sciences and Medical Imaging, University of Lahore, Gujrat Campus

²University Institute of Public Health, The University of Lahore, Main Campus

*akashjohn10048@gmail.com

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*Corresponding Author:

Akash John
Lecturer, University Institute of Radiological and Medical Imaging Sciences, The University of Lahore, Gujrat Campus
akashjohn10048@gmail.com

ABSTRACT

Human immunodeficiency virus (HIV) is a subgroup of retrovirus causing HIV infection which if prolongs turns into a progressive failure of the immune system called as acquired immunodeficiency syndrome. It is commonly prevalent in Male Transgenders who are born male and disobeys the cultural defined social norms and identify themselves as a female. The objective was to assess knowledge, Attitudes and Practices of Transgender Community regarding Transmission of Human Immunodeficiency Virus in Lahore, Pakistan. A Descriptive Cross-sectional Survey was conducted in Nine Towns of Lahore. A sample size of 79 was calculated and data was collected in duration of 9 months. A self-administered survey-based questionnaire was developed using WHO and National AIDS control Programme guidelines followed and pilot tested. Data was collected after Informed consent. The mean age of Respondents was 29.56 ± 8.27 years with minimum and maximum age as 19 and 50. In this study the mean knowledge score of the transgender about HIV Transmission was 2.804 ± 0.32 , the mean score of attitudes of transgender were 3.25 ± 0.19 and the mean practice score was 2.931 ± 0.28 . Majority of the transgender have insufficient knowledge, and bad attitude towards their health. They have unsafe sexual practice and Drug Interventions playing a significant role in HIV epidemic. Majority of them are uneducated, unemployed and found sex selling and dancing an easiest way of earning. Their knowledge about HIV screening, transmission, and antiretroviral therapy is low.

INTRODUCTION

Human immunodeficiency virus (HIV) is a subgroup of retrovirus which causes HIV infection which if prolongs turns into a progressive failure of the immune system called as acquired immunodeficiency syndrome (AIDS) (2). It is a socially communicable disease which has become pandemic within three decades since its discovery. It is estimated that 150000 people in Pakistan are HIV infected (4) and it is commonly prevalent among injecting drug users and male transgender known as Hijras in India and Pakistan.

Male Transgenders are diverse group of people born male and identifying themselves as female because they associate femininity with spiritual supremacy. They are commonly led by the gurus they all need permission from their gurus to perform any acts like dancing, blessing births,

begging and sex work. Due to dismal of legal rights, discrimination and unacceptability in society leads majority of them towards sex trade. (11) (10) Previous studies have reported that HIV prevalence is nineteen times higher among transgender sex workers (13) because transgender are receptive partners in anal sex. They can get their anal lining ruptured more easily to get HIV infection. Transgenders get more payment and customers in practice of unprotected sex which makes the condition worsen to acquire and transmit HIV (6), so the consideration of money and customer satisfaction makes situation difficult to influence them for condom use. (15) The use of injectable hormones for feminism makes transgender more vulnerable towards HIV because of self-administration of needles and

sharing similar syringes.

According to IBBS 2016-2017 report of Pakistan estimates the transgender from 23 cities ranging between 26,804 and 36,776 at 9820 spots. Four cities Karachi, Lahore Multan and Faisalabad had major concentration of Transgenders forming 60% of total estimated number of Transgender in Pakistan and 3936 transgender were mapped and interviewed from Lahore. 5th round of IBBS estimates 5191 Transgenders who were tested and among them 287 were HIV positive in which 277 of the total were tested from Lahore and results 15 HIV positive framing prevalence 5.4%. This study was conducted to evaluate Knowledge attitude and Practices of transgender in second most populous and socially liberal city of Pakistan. The Transgender involved in sex trade and drug injections described HIV transmission associated with their sexual behaviour. This Survey has highlighted the effects of sex selling in transgender playing a dominant role in HIV epidemic. This study will contribute in designing effective prevention and treatment programs for the transgender community

METHODS

A Descriptive Cross-sectional Survey was conducted in Lahore, Pakistan. A sample size of 79 was calculated using prevalence of HIV among transgender in Lahore City i.e. 5.4% taken from IBBS Report 2017. The data was collected using Snowball Sampling Method for the duration of 9 months. Transgenders of different types and age groups ranging from 16-50 was included after taking informed consent. A self-administered survey-based questionnaire was developed using WHO and National AIDS control Programme guidelines followed and pilot tested. After Informed consent, data was collected and analysed with the help of the Statistical Package for Social Science (SPSS) version 22. For Quantitative data Mean $\pm$ and Standard Deviation was used. For Categorical data Frequency and Percentages was used for comparison of Knowledge, Attitudes and Practices of transgender.

RESULTS

Transgender are socially privileged population in Lahore, Pakistan. This study was planned to visualize the magnitude of their knowledge, attitude and practices about sexual and direct contact transmitting disease like HIV in Lahore, Pakistan. The Data obtained from formal questionnaire was based on important variables i.e. age, profession and qualification of Male Transgender in Lahore Pakistan. Professions of transgender were included as Sex Workers, Only Dancer and Beggars/ Blessing Birth. From data, their academic qualifications were categorized into Illiterate, Middle, Matric, Intermediate, Secondary Education and Graduates.

Questionnaire was based on 30 questions, 10 questions each

of Knowledge, Attitudes and Practices mentioned in Table 3.0. Data Analysis showed the significance relationship between two variables education and profession while the results of third variable i.e. age show no significant relationship. The mean age of Respondents was 29.56 ± 8.27 years with minimum and maximum age as 19 and 50 mentioned in Table 3.1. A detailed Summary of Statistics is mentioned in Table 3.2. Comparative studies of Knowledge attitude and Practice of Transgender Regarding Education and Profession in mentioned in Table 3.3 and Table 3.4. In current study the knowledge was also low as mean score of 2.804 $p < .000$ the mean knowledge score among illiterate people was 2.62 ± 0.37 , middle educated was 2.77 ± 0.26 , and Matric was 2.88 ± 0.23 , secondary was 3.22 ± 0.39 and graduate was 3.08 ± 0.19 . The total knowledge score among different education level was highly significant having P value 0.00. The mean Attitudes score among illiterate people was 3.21 ± 0.20 , middle educated was 3.22 ± 0.17 , and Matric was 3.30 ± 0.21 , secondary was 3.25 ± 0.17 and graduate was 3.34 ± 0.19 . The mean Attitudes score among Blessing birth/Beggar was 2.99 ± 0.08 , only dancer was 3.30 ± 0.17 , and Sex workers was 3.29 ± 0.17 . The total attitudes score among their Profession were significantly different with P value 0.00.

In our Study mean Practices score among illiterate people was 2.97 ± 0.29 , middle educated was 2.92 ± 0.25 , Matric was 3.03 ± 0.20 , secondary was 2.68 ± 0.55 and graduate was 2.72 ± 0.36 . The mean Practices score among Blessing birth/Beggar was 2.62 ± 0.37 , only dancer was 2.77 ± 0.26 , and Sex workers was 3.08 ± 0.19 . The total practices score among their Profession were highly significant with P value 0.00.

Table 3.0: Questionnaire about Knowledge, attitudes and Practices of Male Transgenders

Knowledge	1. Do you know HIV/AIDS is a communicable disease?
	2. Are you comfortable discussing sexually transmitted diseases with a healthcare provider?
	3. Do you think that HIV can be transferred through oral sex?
	4. Are you aware that HIV can be transmitted through unprotected anal sex?
	5. Are you aware that certain factors, including social and healthcare barriers, may put transgender individuals at higher risk of contracting HIV?
	6. Do you agree that condom effectively protect against HIV?
	7. Do you believe that people living with HIV always appear visibly unhealthy?
	8. Would you be open to getting screened for HIV/AIDS regularly as recommended by healthcare professionals?
	9. Are you interested in learning about the treatment for HIV/AIDS?
	10. Do you know that HIV/AIDS is not completely curable?
Attitudes	1. Do you engage in sexual activity for pleasure?
	2. Do you prefer oral sex?
	3. Do you prefer using a condom during sexual intercourse for HIV prevention?

Practices	4. Do you engage in sexual activity with multiple partners?
	5. Do you feel comfortable discussing your sexual health with friends and family?
	6. Do you think transgender individuals face higher rates of sexual abuse?
	7. Do you inquire about the health status from your partners?
	8. Does your community or mentor (Guru) discuss issues related to sex work or provide guidance on safe practices?
	9. Do you engage in any forms of work, such as performance arts or other community activities such as blessing birth, or begging?
	10. Do you prefer having unprotected sex?
	1. Do you always use condoms during sexual activity?
	2. Do you engage in sexual activity with people who inject drugs?
	3. Do you ever engage in sexual activity with individuals living with HIV?
	4. Do you wash your genitals after sexual activity?
	5. Do you use injectable hormones for transitioning?
	6. Do you prefer using water-based lubricants during sexual activity?
	7. Do you get tested for HIV after having sex?
	8. Do you meet potential clients in public spaces such as streets or community areas?
	9. Do you sometimes engage in sexual activity in public places, such as parks or stations, without considering the legal and health risks?"
	10. Do you think some transgender individuals share needles when injecting drugs?

Note: This questionnaire uses a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) to assess the Knowledge, Attitudes, and Practices of male transgender individuals regarding HIV/AIDS prevention. The scale demonstrates acceptable reliability with Cronbach's Alpha values of 0.83 for Knowledge, 0.75 for Attitudes, and 0.78 for Practices.

Table 3.1: Descriptive Statistics of Age of Respondents

Descriptive Statistics	
Mean	29.56
Median	29.00
Std. Deviation	8.27
Range	48.00
Minimum	19.00
Maximum	50.00

Table 3.2: Summary Statistics of Knowledge, Attitudes and practices scores

Statistics			
	Total practices score	Total attitudes score	Total Knowledge score
Mean	2.80	3.25	2.93
Std. Deviation	0.32	0.19	0.28
Range	1.50	1.00	1.60
Minimum	2.10	2.70	2.20
Maximum	3.60	3.70	3.80

Table 3.3: Comparison of Knowledge Attitudes & Practices of Male Transgender w.r.t level of Education

		N	Mean	Std. Deviation	Minimum	Maximum	P Value
Total Knowledge Score	Illiterate	18	2.62	0.37	2.10	3.20	0.00**
	Middle	33	2.77	0.26	2.10	3.30	
	Matric	19	2.88	0.23	2.60	3.40	
	Secondary Education	4	3.22	0.39	2.80	3.60	
	Graduates	5	3.08	0.19	2.80	3.30	
	Total	79	2.80	0.32	2.10	3.60	
Total Attitude Score	Illiterate	18	3.21	0.20	2.90	3.50	0.382
	Middle	33	3.22	0.17	2.90	3.50	
	Matric	19	3.30	0.21	2.70	3.70	
	Secondary Education	4	3.25	0.17	3.10	3.50	
	Graduates	5	3.34	0.19	3.10	3.60	
	Total	79	3.25	0.19	2.70	3.70	
Total Practices Score	Illiterate	18	2.97	0.29	2.60	3.80	0.068
	Middle	33	2.92	0.25	2.40	3.30	
	Matric	19	3.03	0.20	2.70	3.40	
	Secondary Education	4	2.68	0.55	2.20	3.20	
	Graduates	5	2.72	0.36	2.20	3.10	
	Total	79	2.93	0.28	2.20	3.80	

** Highly Significant

Table 3.4: Comparison of Knowledge Attitudes & Practices of Male Transgender w.r.t their Profession

		N	Mean	Std. Deviation	Minimum	Maximum	P Value
Total Knowledge Score	Blessing birth/Beggar	11	2.25	0.10	2.10	2.40	0.00**
	Only dancer	3	3.43	0.21	3.20	3.60	
	Sex workers	65	2.87	0.21	2.40	3.40	
	Total	79	2.80	0.32	2.10	3.60	
Total Attitudes Score	Blessing birth/Beggar	11	2.99	0.08	2.90	3.20	0.00**
	Only dancer	3	3.30	0.17	3.20	3.50	
	Sex workers	65	3.29	0.17	2.70	3.70	
	Total	79	3.25	0.19	2.70	3.70	
Total Practices Score	Blessing birth/Beggar	11	2.78	0.13	2.60	3.00	0.00**
	Only dancer	3	2.20	0.00	2.20	2.20	
	Sex workers	65	2.99	0.25	2.40	3.80	
	Total	79	2.93	0.28	2.20	3.80	

** Highly Significant

DISCUSSION

The current study was conducted to rule out the cause of HIV transmission among male transgender in Pakistan. Moreover, the researcher was interested to explore the important factors like Profession and Qualification contributing towards HIV epidemic in Pakistan. The researcher has evaluated the factors with the help of self-administered survey-based questionnaires based on 10 questions each and totally making 30 questions.

Human Immuno deficiency virus transmitted through Sexual contact and contaminated syringes and also through pregnant women to their Child. The sexual contact with infected person is the cause of HIV spread because it enters by ruptured lining of penis, vagina, and rectum. The Transgender have less knowledge about HIV/AIDS. Majority of them was Illiterate and were involved in sex selling profession. The assessment about knowledge was based on 10 questions. In the current study the mean knowledge score of the respondents according to each 10 questions. The mean knowledge score among illiterate people was 2.62 ± 0.37 , middle educated was 2.77 ± 0.26 , and Matric was 2.88 ± 0.23 , secondary was 3.22 ± 0.39 and graduate was 3.08 ± 0.19 . The total knowledge score among different Professional and education levels were significantly different. In a KAP survey by Demis on HIV and STI included 324 participants, including 189 (58.3 %) males and the remaining 135 (41.7 %) females. Most of the participants (88 %) were between 15 and 19 years of age and 274 (84.6 %) were single. The majority of 287 (88.5%) had never heard of HIV & STIs. In current study the knowledge was also low as mean score of 2.804 $p < .000$. In a cross-section analysis by Arshad Alta the average age of HSW in Larkana was $26.42 (\pm 5.4)$ years and in current study the mean ages was 29.56 ± 8.27 they were more likely to lack information about HIV prevention measures and were more likely to be alcohol-induced during anal intercourse.

Transgender in Lahore have bad attitudes in spread and transmission. Majority of them was Illiterate and were involved in sex selling profession. In our study the mean attitudes score of the respondents according were recorded according to 10 questions. The mean Attitudes score among illiterate people was 3.21 ± 0.20 , middle educated was 3.22 ± 0.17 , and Matric was 3.30 ± 0.21 , secondary was 3.25 ± 0.17 and graduate was 3.34 ± 0.19 . The mean Attitudes score among Blessing birth/Beggar was 2.99 ± 0.08 , only dancer was 3.30 ± 0.17 , and Sex workers was 3.29 ± 0.17 . The total attitudes score among their Profession were significantly different with P value 0.00.

In UNAIDS GAP 2014 transgender are more prone to get infected by HIV. It is estimated that 19 % are HIV infected because of bad attitude. According to them they are faced with racism, exploitation and unavailability to adequate health care. Both of these factors lead to raising the susceptibility of transgender people to HIV through the sale of sex. Collumbien M found several threats between male and transgender sex workers in Pakistan and published Research in 2009. Quantitative surveys were conducted among 918 male and transgender sex workers. They exhibit excessive stages of risk behaviour and lack of consciousness and level of sexual networking with men who inject drugs similarly add to the fitness risks of sex workers.

The effects point out that remote techniques with single-risk organizations are not likely to be ample to display unfold of the epidemic in Pakistan. In current study transgender faced sexual abuse, social discrimination and Regional marginalization forcing them towards sex selling in which the priority of unprotected sex for customer satisfaction making condition worse.

In this study majority of the transgender have unsafe sexual Practice and Drug Interventions playing a significant role in HIV epidemic. In our Study mean Practices score among illiterate people was 2.97 ± 0.29 , middle educated was 2.92 ± 0.25 , Matric was 3.03 ± 0.20 , secondary was 2.68 ± 0.55 and graduate was 2.72 ± 0.36 . The mean Practices score among Blessing birth/Beggar was 2.62 ± 0.37 , only dancer was 2.77 ± 0.26 , and Sex workers was 3.08 ± 0.19 . The total practices score among their Profession were highly significant with P value 0.00.

The current study also supported the prevalence was high in Lahore, Pakistan because that majority of the transgender have insufficient knowledge, and bad attitude towards their health. They have unsafe sexual Practice and Drug Interventions playing a significant role in HIV epidemic. They Practice unsafe sex for customer satisfaction and also use hormonal injections for breast enlargement using similar syringes. Majority of them are uneducated and unemployed and found sex selling and dancing an easiest way of earning. Their knowledge about cause and transmission of HIV is very low. Additionally, they don't know about basic screening and antiretroviral therapies.

CONCLUSION

In conclusion Covid-19 pneumonia shows characteristic patterns on HRCT, and that is applicable to the CO-RADS criteria of HRCT establishing a diagnosis. Clinical symptomatology, HRCT findings, and PCR should all be used in a triple examination, especially in locations where COVID-19 positive is low. A positive PCR test is very specific and used to make the diagnosis for Covid-19. CT has a higher sensitivity but a lower specificity, and it can help with disease diagnosis and therapy.

REFERENCES

- [1] Weiss RA. How does HIV cause AIDS? Science. 1993; 260(5112): 1273-9. <https://doi.org/10.1126/science.8493571> <https://doi.org/10.1126/science.8493571> <https://doi.org/10.1126/science.8493571>
- [2] Douek DC, Roederer M, Koup RA. Emerging concepts in the immunopathogenesis of AIDS. Annual review of medicine. 2009; 60: 471-484. <https://doi.org/10.1146/annurev.med.60.041807.123549>

- <https://doi.org/10.1146/annurev.med.60.041807.123549>
- [3] Ali A, Ali NS, Nasir U, Aadil M, Waqas N, Zil-E-Ali A, et al. Comparison of Knowledge and Attitudes of Medical and Dental Students towards HIV/AIDS in Pakistan. *Cureus*. 2018;10(4). <https://doi.org/10.7759/cureus.2426>
 - [4] Monitoring GA. WHO Pakistan HIV Country Profile: 2017. 2017.
 - [5] Khan AA, Rehan N, Qayyum K, Khan A. Correlates and prevalence of HIV and sexually transmitted infections among Hijras (male transgenders) in Pakistan. *International journal of STD & AIDS*. 2008;19(12):817-820. <https://doi.org/10.1258/ijsa.2008.008135>
 - [6] Cai Y, Wang Z, Lau JT, Li J, Ma T, Liu Y. Prevalence and associated factors of condomless receptive anal intercourse with male clients among transgender women sex workers in Shenyang, China. *Journal of the International AIDS Society*. 2016;19:20800. <https://doi.org/10.7448/IAS.19.3.20800>
 - [7] Ganju D, Saggurti N. Stigma, violence and HIV vulnerability among transgender persons in sex work in Maharashtra, India. *Culture, health & sexuality*. 2017;19(8):903-917. <https://doi.org/10.1080/13691058.2016.1271141>
 - [8] Rajabali A, Khan S, Warraich HJ, Khanani MR, Ali SH. HIV and homosexuality in Pakistan. *The Lancet infectious diseases*. 2008;8(8):511-515. [https://doi.org/10.1016/S1473-3099\(08\)70183-X](https://doi.org/10.1016/S1473-3099(08)70183-X)
 - [9] Coleman E, Bockting W, Botzer M, Cohen-Kettenis P, DeCuypere G, Feldman J, et al. Standards of care for the health of transsexual, transgender, and gender-nonconforming people, version 7. *International journal of transgenderism*. 2012;13(4):165-232. <https://doi.org/10.1080/15532739.2011.700873>
 - [10] Kalra G. Hijras: The unique transgender culture of India. *International Journal of Culture and Mental Health*. 2012;5(2):121-126. <https://doi.org/10.1080/17542863.2011.570915>
 - [11] HIV/AIDS JUNPo. Prevention gap report. Geneva: UNAIDS. 2016.
 - [12] Rispel LC, Metcalf CA. Breaking the silence: South African HIV policies and the needs of men who have sex with men. *Reproductive health matters*. 2009;17(33):133-142. [https://doi.org/10.1016/S0968-8080\(09\)33442-4](https://doi.org/10.1016/S0968-8080(09)33442-4)
 - [13] UNAIDS. The gap report 2014. Geneva, Switzerland, UNAIDS. 2014.
 - [14] Nemoto T, Bödeker B, Iwamoto M, Sakata M. Practices of receptive and insertive anal sex among transgender women in relation to partner types, sociocultural factors, and background variables. *AIDS care*. 2014;26(4):434-440. <https://doi.org/10.1080/09540121.2013.841832>
 - [15] Organization WH. Report of the Consultation on HIV, STI and Other Health Needs of Transgender People in Asia and the Pacific, Manila, Philippines, 11-13 September 2012. Manila: WHO Regional Office for the Western Pacific, 2012.
 - [16] Hoffman BR. Substance Use among Transgender Sex Workers. *Transgender Sex Work and Society*. 2018. <https://doi.org/10.17312/harringtonparkpress/2017.1.tsws.008>
 - [17] Lombardi EL, van Servellen G. Building culturally sensitive substance use prevention and treatment programs for transgendered populations. *Journal of Substance Abuse Treatment*. 2000;19(3):291-296. [https://doi.org/10.1016/S0740-5472\(00\)00114-8](https://doi.org/10.1016/S0740-5472(00)00114-8)
 - [18] IBBS HSIP. Integrated Biological & Behavioral Surveillance In Pakistan. 2016-17.
 - [19] Kakchapati S, Maharjan M, Rawal BB, Dixit SM. Social determinants and risk behaviors associated with prevalent Hepatitis C and HIV/HCV co-infection among male injection drug users in Nepal. *Archives of Public Health*. 2017;75(1):1-10. <https://doi.org/10.1186/s13690-017-0206-8>
 - [20] Khan MNM, Sarwar G, Irfan SD, Gourab G, Rana AM, Khan SI. Understanding the Barriers of HIV Testing Services for Men Who Have Sex With Men and Transgender Women in Bangladesh: A Qualitative Study. *International Quarterly of Community Health Education*. 2021:0272684X21995672. <https://doi.org/10.1177/0272684X21995672>