

CHAPTER 21

Prevalence and Associated Factors of Condomless Receptive Anal Intercourse with Male Clients among Transwomen Sex Workers in Shenyang, China

*Zixin Wang*¹

*Joseph T. F. Lau*²

*Yong Cai*³

*Jinghua Li*⁴

*Tiecheng Ma*⁵

*Yan Liu*⁶

- 1 Research assistant professor in the JC School of Public Health and Primary Care, Faculty of Medicine, Chinese University of Hong Kong.
- 2 Professor and associate director of the JC School of Public Health and Primary Care, Faculty of Medicine, Chinese University of Hong Kong.
- 3 Associate professor in the School of Public Health, Shanghai Jiaotong University, Shanghai, China.
- 4 Associate professor in the School of Public Health, Sun Yat-sen University, Guangzhou, China.
- 5 Chief executive of Shenyang Consultation Centre of AIDS Aid and Health Service, Shenyang, China.
- 6 On the staff at Shenyang Consultation Centre of AIDS Aid and Health Service.

SUMMARY

Globally, transwomen sex workers have a high prevalence of HIV and condomless receptive anal intercourse with male clients (CRAIMC). We investigated the prevalence of CRAIMC and factors associated with CRAIMC among transwomen sex workers in China. HIV prevalence among transwomen sex workers was high but probably underestimated.

The high prevalence of condomless anal intercourse with male nonclients and high mobility in sex work among this population in China are causes for concern. Risk factors for CRAIMC were multidimensional and should be considered when designing interventions targeting transwomen sex workers. Such interventions are urgently needed.

KEY TERMS

China; condomless anal intercourse; HIV prevalence; transwomen sex workers

REFERENCES

- Baral, S. D., Poteat, T., Strömdahl, S., Wirtz, A. L., Guadamuz, T. E., & Beyrer, C. (2013). Worldwide burden of HIV in transgender women: A systematic review and meta-analysis. *Lancet Infectious Diseases*, 13 (3), 214–222.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Best, J., Tang, W., Zhang, Y., Han, L., Liu, F., & Huang, S. (2015). Sexual behaviors and HIV/syphilis testing among transgender individuals in China: Implications for expanding HIV testing services. *Sexually Transmitted Diseases*, 42 (5), 281–285.
- Bianchi, F. T., Reisen, C. A., Zea, M. C., Vidal-Ortiz, S., Gonzales, F. A., & Betancourt, F. (2014). Sex work among men who have sex with men and transgender women in Bogotá. *Archives of Sexual Behavior*, 43 (8), 1637–1650.
- Bocking, W. O., Robinson, B. E., & Rosser, B. R. (1998). Transgender HIV prevention: A qualitative needs assessment. *AIDS Care*, 10 (4), 505–525.
- Centers for Disease Control and Prevention. (2006). HIV prevalence among populations of men who have sex with men—Thailand, 2003 and 2005. *Morbidity and Mortality Weekly Report*, 55 (31), 844–848.
- Chew, S., Tham, K. F., & Ratnam, S. S. (1997). Sexual behaviour and prevalence of HIV antibodies in transsexuals. *Journal of Obstetrics and Gynaecology Research*, 23 (1), 33–36.
- Hawkes, S., Collumbien, M., Platt, L., Lalji, N., Rizvi, N., & Andreasen, A. (2009). HIV and other sexually transmitted infections among men, transgenders, and women selling sex in two cities in Pakistan: A cross-sectional prevalence survey. *Sexually Transmitted Infections*, 85 (Suppl. 2), ii8–16.
- Herbst, J. H., Jacobs, E. D., Finlayson, T. J., McKleroy, V. S., Neumann, M. S., & Crepaz, N. (2008). Estimating HIV prevalence and risk behaviors of transgender persons in the United States: A systematic review. *AIDS and Behavior*, 12 (1), 1–17.
- Janz, N. K., & Becker, M. H. (1984). The Health Belief Model: A decade later. *Health Education Quarterly*, 11 (1), 1–47.
- Jiang, H., Wei, X., Zhu, X., Wang, H., & Li, Q. (2014). Transgender patients need better protection in China. *Lancet*, 384, 2109–2110.
- Keatley, J., & Clements-Nolle, K. (2001). What are the prevention needs of male-to-female transgender persons (MTFs)? Center for AIDS Prevention Studies, University of California, San Francisco. Retrieved from www.caps.ucsf.edu/pubs/FS/MTF.php.

- Lau, J. T., Cai, W., Tsui, H. Y., Chen, L., Cheng, J., & Lin, C. (2012). Unprotected anal intercourse behavior and intention among male sex workers in Shenzhen serving cross-boundary male clients coming from Hong Kong, China: Prevalence and associated factors. *AIDS Care*, 24 (1), 59–70.
- Lau, J. T., Gu, J., Tsui, H. Y., Chen, H., Holroyd, E., & Wang, R. (2012). Prevalence and associated factors of condom use during commercial sex by female sex workers who were or were not injecting drug users in China. *Sexual Health*, 9 (4), 368–376.
- Lau, J. T., Ho, S. P., Yang, X., Wong, E., Tsui, H. Y., & Ho, K. M. (2007). Prevalence of HIV and factors associated with risk behaviours among Chinese female sex workers in Hong Kong. *AIDS Care*, 19 (6), 721–732.
- Lau, J. T., Wang, Z., Lau, M., & Lai, C. H. (2014). Perceptions of HPV, genital warts, and penile/anal cancer and high-risk sexual behaviors among men who have sex with men in Hong Kong. *Archives of Sexual Behavior*, 43 (4), 789–800.
- Liu, Y. Y., Tao, H. D., Liu, J., Fan, Y. G., Zhang, C., & Li, P. (2016). Prevalence and associated factors of HIV infection among men who have sex with men in Hefei, China, 2013–2014: A cross-sectional study. *International Journal of STD & AIDS*, 27 (4), 305–312.
- McGrath, N., Eaton, J. W., Newell, M. L., & Hosegood, V. (2015). Migration, sexual behaviour, and HIV risk: A general population cohort in rural South Africa. *Lancet HIV*, 2 (6), e252–259.
- Michie, S., Johnston, M., Francis, J., Hardeman, W., & Eccle, M. (2008). From theory to intervention: Mapping theoretically derived behavioural determinants to behaviour change techniques. *Applied Psychology*, 57, 660–680.
- Nemoto, T., Iwamoto, M., Perngparn, U., Areesantichai, C., Kamitani, E., & Sakata, M. (2012). HIV-related risk behaviors among kathoey (male-to-female transgender) sex workers in Bangkok, Thailand. *AIDS Care*, 24 (2), 2101–2109.
- Nemoto, T., Operario, D., Keatley, J., Han, L., & Soma, T. G. (2004). HIV risk behaviors among male-to-female transgender persons of color in San Francisco. *American Journal of Public Health*, 94 (7), 1193–1199.
- Nemoto, T., Operario, D., Keatley, J., & Villegas, D. (2004). Social context of HIV risk behaviours among male-to-female transgenders of colour. *AIDS Care*, 16 (6), 724–735.
- Operario, D., Soma, T., & Underhill, K. (2008). Sex work and HIV status among transgender women: Systematic review and meta-analysis. *Journal of Acquired Immune Deficiency Syndrome*, 48 (1), 97–103.
- Poteat, T., Wirtz, A. L., Radix, A., Borquez, A., Silva-Santisteban, A., & Deutsch, M. B. (2015). HIV risk and preventive interventions in transgender women sex workers. *Lancet*, 385, 274–286.
- Ren, X. (1999). Prostitution and economic modernization in China. *Violence against Women*, 5 (12), 1411–1436.

- Richter, M. L., Chersich, M., Temmerman, M., & Luchters, S. (2013). Characteristics, sexual behaviour and risk factors of female, male and transgender sex workers in South Africa. *South African Medical Journal = Suid-Afrikaanse tydskrif vir geneeskunde*, 103 (4), 246–251.
- Roche, K., & Keith, C. (2014). How stigma affects healthcare access for transgender sex workers. *British Journal of Nursing*, 3 (2), 1147–1152.
- Spizzichino, L., Zaccarelli, M., Rezza, G., Ippolito, G., Antinori, A., & Gattari, P. (2001). HIV infection among foreign transsexual sex workers in Rome: Prevalence, behavior patterns, and seroconversion rates. *Sexually Transmitted Diseases*, 28 (7), 405–411.
- Sutmoller, F., Penna, T. L., de Souza, C. T., Lambert, J., & Oswaldo Cruz Foundation. (2002). Human immunodeficiency virus incidence and risk behavior in the “Projeto Rio”: Results of the first 5 years of the Rio de Janeiro open cohort of homosexual and bisexual men, 1994–98. *International Journal of Infectious Diseases*, 6 (4), 259–265.
- Tucker, J. D., Yin, Y. P., Wang, B., Chen, X. S., & Cohen, M. S. (2011). An expanding syphilis epidemic in China: Epidemiology, behavioural risk, and control strategies with a focus on low-tier female sex workers and men who have sex with men. *Sexually Transmitted Infections*, 87 (Suppl. 2), iii6–18.
- Valente, T. W., & Fosados, R. (2006). Diffusion of innovations and network segmentation: The part played by people in promoting health. *Sexually Transmitted Diseases*, 33 (7) (Suppl.), S23–31.
- Vinolas, J., Serra, M., Russi, J. C., Ruchansky, D., Sosa-Estani, S., & Montano, S. M. (2005). Seroincidence and phylogeny of human immunodeficiency virus infections in a cohort of commercial sex workers in Montevideo, Uruguay. *American Journal of Tropical Medicine and Hygiene*, 72 (4), 495–500.
- Wang, Z., Li, D., Lau, J. T., Yang, X., Shen, H., & Cao, W. (2015). Prevalence and associated factors of inhaled nitrites use among men who have sex with men in Beijing, China. *Drug and Alcohol Dependence*, 149, 93–99.
- Xu, J. J., Qian, H. Z., Chu, Z. X., Zhang, J., Hu, Q. H., & Jiang, Y. J. (2014). Recreational drug use among Chinese men who have sex with men: A risky combination with unprotected sex for acquiring HIV infection. *BioMed Research International*, 72, 361–366.