

SEXUAL MIXING PATTERNS AMONG MALE-FEMALE PARTNERSHIPS IN MELBOURNE, AUSTRALIA

Greaves KE^{1,2}, Fairley CK^{1,2}, Engel JL^{1,2}, Ong JJ^{1,2}, Rodriguez E¹, Phillips TR^{1,2*}, Chow EPF^{1,2,3*}

*Co-last authors

1. Melbourne Sexual Health Centre, The Alfred Hospital, Melbourne, Victoria, Australia
2. Central Clinical School, Faculty of Medicine, Nursing and Health Sciences, Monash University, Melbourne, Victoria, Australia
3. Centre for Epidemiology and Biostatistics, Melbourne School of Population and Global Health, The University of Melbourne, Melbourne, Victoria, Australia

Background:

The rates of sexually transmitted infections (STIs) are higher among individuals who have same-sex partners than those who have only opposite-sex partners. Individuals who have both same-sex and opposite-sex partners have the potential to pass STIs between high and low risk populations. Our aim was to examine assortative sexual mixing (i.e., the tendency to choose sexual partners with similar characteristics) in terms of same sex activity among opposite-sex partnerships.

Method:

We analysed individuals in male-female partnerships attending the Melbourne Sexual Health Centre (MSHC) from 2015 to 2019. Gender and number of sexual partners were collected via computer-assisted self-interview (CASI). We calculated the proportion of partnerships where at least one individual also reported same-sex partners in the previous 12 months and the degree of assortativity by bisexuality, meaning how likely two individuals who both have same-sex partners were to mix beyond random chance.

Results:

A total of 2112 opposite-sex partnerships (i.e., 4224 individuals) were included. In 9.5% (201/2112) of partnerships, same-sex partners were reported in one individual, and in 1.2% (26/2112) of partnerships both individuals reported same-sex partners. Men who also had male partners had a higher number of casual sexual partners than heterosexual men (median=5 vs 1; $p<0.001$). Women who also had female partners had a higher number of casual sexual partners than heterosexual women (median=6 vs 1; $p<0.001$). Bisexuality appeared to be slightly assortative in opposite-sex partnerships ($r = 0.163$, 95% CI: 0.150-0.176; $p<0.001$).

Conclusion:

One in 10 individuals in opposite-sex partnerships had at least one same-sex partner within the previous 12 months, and these individuals had more casual sexual

partners than those without same-sex partners. Individuals were not highly selective by bisexuality, suggesting the patterns of bisexual mixing in opposite-sex partners are more variable and this may have a significant impact on STI transmission in heterosexual populations.

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