Mixed-HIV-Status Gay Couples Employ Multiple Risk-Reduction Strategies

Researchers broke down the various strategies that the gay men in the Opposites Attract study used to prevent HIV transmission.

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Gay couples of mixed HIV status who participated in the Opposites Attract study—which saw no transmissions among them when the HIV-positive partner had an undetectable viral load—employed an array of risk reduction strategies, aidsmap reports.

Publishing their findings in the Journal of the International AIDS Society, researchers analyzed sexual behavioral data on all 343 couples from Opposites Attract, the primary results of which were published in 2018 after first being presented at the 9th International AIDS Society Conference on HIV Science in Paris (IAS 2017).

Along with the HPTN 052 study and the two phases of the PARTNER study, the findings of the Opposites Attract study contributed to the global scientific consensus that people with HIV who take antiretrovirals (ARVs) and sustain an undetectable viral load do not transmit the virus through sex.

The Opposites Attract study included 153 couples in Australia, 93 in Brazil and 97 in Thailand. The study launched in Australia in 2012 and was extended into the other two nations in 2014. The participants had an average age of 36 years old.

Upon entering the study, 85% of the HIV-positive Australian participants were on ARVs, as were 80% of the Brazilians and 50.5% of the Thais. By the end of the study's follow-up, just six HIV-positive participants remained off ARVs.

Among the couples, 11% of the Australians, 31% of the Brazilians and 45% of the Thais reported that they always used condoms for intercourse. A reported 47% of all acts of anal sex that occurred within the couples during the study involved a condom.

Of the HIV-negative participants, 27% of the Australians, 40% of the Brazilians and 37% of the Thais reported at least some use of pre-exposure prophylaxis (PrEP).

Breaking down the risk reduction strategies that applied to each act of intercourse, the

researchers found that 77% were covered by the men's perception that the HIV-positive partner had an undetectable viral load; 62% were covered by seropositioning, in which the HIV-negative partner assumes the insertive role (the top); 47% were covered by condoms; and 24% were covered by PrEP. These strategies overlapped in many cases.

Twelve percent of the sex acts were covered only by a perceived undetectable viral load; 5% were covered just by condoms; 3% were covered just by seropositioning; and 1% were covered only by PrEP.

Twenty-three percent of all acts of intercourse were covered by perceived undetectability and seropositioning; 12% were covered by perceived undetectability, seropositioning and condoms; 9% were covered by condoms and perceived undetectability; 9% were covered by condoms and seropositioning; and 7% were covered by perceived undetectability, PrEP and seropositioning. Four percent of sex acts were covered by all four strategies; and 1.6% were covered by none.

Of the 1,780 viral load test results that HIV-positive participants received during the study, 15 (0.8%) indicated a viral load above 200 when negative partners incorrectly thought their partners' viral load was undetectable. In all of these cases, the viral load was above 1,000 and therefore significantly infectious.

Otherwise, when it came to the HIV-negative partner's perception of his partner's viral load, for 71.2% of the tests, he correctly believed his partner was undetectable; for 5.3% of the tests, he correctly believed his partner had a detectable viral load; for 6.6% he said he did not know his partner's viral load; and for 16.1% he incorrectly believed his partner had a detectable viral load when the partner was actually undetectable.

To read the aidsmap article, click here.

To read the study abstract, click here.

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