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Substance use, penis medicines and HIV infection—is there a link?

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Some people engage in substance use to get high. But these drugs can weaken a person’s judgment, critical thinking and common sense. In sexual situations, use of illicit substances can lead to unprotected sex and the spread of HIV and other sexually transmitted infections (STIs).

In males, use of certain substances—including alcohol, cocaine, ecstasy and marijuana—can sometimes affect their ability to get and maintain an erection. As a result, some male users of illicit substances also take oral medicines to treat impotence (erectile dysfunction, or ED). Some examples of these medicines are as follows:

- sildenafil (Viagra)
- tadalafil (Cialis)
- vardenafil (Levitra)

Researchers in Sydney, Australia, have been conducting a study looking at the intersection of illicit drugs, ED medicines, sexual behaviour and HIV transmission. Their research may pave the path to finding ways to help some gay men lead safer and healthier lives.

The HIM study

Australian researchers recruited sexually active males for their Health In Men (HIM) study. At the time they entered the study, all participants were HIV negative. Every six months they were extensively interviewed about their sexual and substance-using activity. Participants were also tested every year for HIV infection.

The study began its recruitment in July 2001 and continued to recruit until June 2004. It has collected data on 1,427 men, which continues to be analysed. The average profile of the men at the time they entered the study was as follows:

- age – 37 years
- 52% had some university education
- 80% had used illicit drugs in the past six months
- 21% used oral ED medicines

Results

In total, 53 men became HIV positive over the course of the study. Their average age was 37 years.

The researchers found that 621 men reported both unprotected and protected anal intercourse with casual partners in the past six months. What is more, about 50% of these 621 men disclosed that they had used illicit drugs. Taking many factors into account, the researchers found that use of oral ED medicines was linked to becoming HIV positive.

Among men who used illicit substances such as amyl nitrate or crystal meth, their risk for HIV infection increased substantially if they also used ED medicines. This finding may have occurred because illicit drugs and ED medicines are used in combination by some gay and bisexual men “to enable sexual activity within intensive sex partying contexts.”
The pursuit of pleasure

The study team posits that some gay men—whom they call “sexually adventurous”—pursue sexual pleasure to such an extent that they engage in high-risk activities such as the use of illicit substances and unprotected intercourse. In turn, in the setting of illicit drugs and sex partying, this may lead these men to the use of ED drugs.

Other researchers have found that the use of crystal meth and ED medicines has led to “marathon sex” sessions among some people. Prolonged periods of sex may cause condoms to break and may lead to damaged tissue on the penis or inside the anus, increasing the risk of acquiring or transmitting HIV. So, it is possible that some of the men in the present Australian study who used illicit substances and ED medicines are able to have longer-than-usual bouts of unanticipated unprotected sex with multiple partners, placing them at high risk for HIV infection.

Context may be important

The Australian team suggests that the context in which illicit drugs are used is important for understanding HIV risk. They add that simply stating that illicit drugs impair judgment only partly explains their impact on HIV transmission. The researchers make the case that substance use and risky behaviour are linked in complex ways. For instance, Australian and other researchers have found that men who use illicit drugs may do so to help them connect “socially and sexually” with other men. By using illicit drugs and ED meds, these men also seek to enhance sexual performance and pleasure so as to participate in “more sexually adventurous gay subcultures.”

For the future

Concerned about the use of illicit substances and ED medicines in some gay and bisexual men, the Australian team raises several questions that need further study, including these:

- “What are the specific factors, biological or otherwise, in association between the use of oral ED medicines and increased risk of HIV infection?”
- “What is the role of illicit drugs in particular sexual practices within intensive sex partying contexts?”
- “How are amyl nitrate and ED medicines used by gay men?”

Exploring these questions may shed light on the behavior of some gay and bisexual men. This insight could provide ways to help them reduce HIV transmission and lead healthier lives.

—Sean R. Hosein

REFERENCE:

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