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PUBLICATION SOURCE: *Archives of Sexual Behavior*

PAPER TITLE: The relationship between multiple sex partners and anxiety, depression, and substance dependence disorders: A cohort study.

THE BACKGROUND:

We were interested in contemporary sexual behaviour in which both women and men commonly have long periods of serial or concurrent sexual relationships before settling down. This study investigated the effects of multiple heterosexual partners on mental health, specifically anxiety, depression and substance (alcohol and cannabis) dependence disorders.

We examined this using data from the Dunedin Multidisciplinary Health & Development Study, a longitudinal study of the development, health and behaviour of 1,037 babies born in Dunedin in 1972-73. They have been followed since birth and we used data up to age 32 for this study when 96% of the living cohort participated in the assessment. We looked at number of sex partners at three age periods in young adulthood (between 18-20, 21-25 & 26-31 years) and whether they had a disorder immediately after, i.e. at ages 21, 26 and 32 years.

THE MAJOR FINDINGS

1. Increasing numbers of sex partners in young adulthood (in all three age periods) were associated with later substance (alcohol and cannabis) dependence disorders, particularly for women.
2. This finding remained when we took into account any prior mental disorder, including alcohol and cannabis disorders, to rule out the possibility that the men and women already had substance problems and that had led to more sexual partners.
3. For women having 2.5 or more partners per year (compared to none or one partner) greatly increased the odds of having a substance dependence disorder in each age period by between 7 and 17 fold.
4. When we used a model to compare men and women who had more than 10-20 sex partners in the same period, women were much more likely to have a substance disorder than men.
5. When we looked at alcohol and cannabis separately, we found the same pattern.
6. We did not find any association with anxiety or depression which was surprising, as our earlier study found that there was a link between sexual risk taking and anxiety and depression among 21 year olds.

WHAT THE FINDINGS MEAN

1. We suggest a number of possible explanations for these findings that relate to the intertwining of these behaviours: (a) that multiple partners and alcohol/cannabis use are part of a cluster of risk taking behaviours that happen in adolescence and young adulthood; (b) that the disinhibitory effects of alcohol and cannabis are opportunities for sexual behaviour; (c) that the context of drinking like bars are also places to meet partners.

2. Another important possibility is that there is something about having multiple partners itself that puts people (women especially) at risk of substance disorder. For instance it may be the impersonal nature of short term relationships, or the effect of multiple failed relationships.
3. The results apply to alcohol and cannabis at a disorder level. The criteria for disorder include not only significant use of the substance but impairment in social, occupational or recreational activities. This is not just sex with recreational use of alcohol and cannabis.

WHAT ARE THE IMPLICATIONS?

1. There have been changes in patterns of alcohol use and sexual behaviour in contemporary society. Our findings show how they might be linked.
2. Observing such clear gender differences about how alcohol/cannabis disorders and sexual behaviour interact make it very important to study the causes of this problem for women and to engage women in solutions.
3. Those trying to understand contemporary patterns of over-consumption of alcohol and of sexual behaviour that puts people at risk of sexually transmitted infections need to recognise the strong links between these two behaviours.

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