Biomarker evaluation of self-reported condom use among women in HIV-discordant couples.


Source

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Abstract

Self-reported condom use is a commonly collected statistic, yet its use in research studies may be inaccurate. We evaluated this statistic among women in HIV-discordant couples enrolled in a clinical trial in Nairobi, Kenya. Vaginal swabs were acquired from 125 women and tested for prostate-specific antigen (PSA), a biomarker for semen exposure, using an enzyme-linked immunosorbent assay. Ten (10%) of 98 women who reported 100% use of condoms in the previous month tested PSA positive. In a bivariate logistic regression analysis, among women who reported 100% condom use in the previous month, those with ≤8 years of school had significantly higher odds of testing PSA-positive (odds ratio [OR] = 8.39, 95% confidence interval [CI] 1.02-69.13) than women with more schooling. Our estimate may be conservative, as the ability to detect PSA may be limited to 24-48 hours after exposure. Less educated women may be a target group for counselling regarding reporting sexual behaviour in clinical trials.