VIOLENCE, DISTRESS, AND HIV TESTING IN HETEROSEXUALLY ACTIVE ADULTS IN THE US

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BACKGROUND

- In 2019, 36,801 people were newly diagnosed with HIV in the United States
- 23% of those with new infections reported heterosexual contact
- Violence is known to increase HIV vulnerability, but violence is also associated with a lack of HIV testing.
- We hypothesized that this relationship may be mediated by psychological distress as psychological distress is associated with violence and lack of HIV testing.
- These pathways are understudied among heterosexually active men and women and tend to not stratify by type of violence
- The study objective was to assess the relationship between violence, psychological distress, and HIV testing among 2019 heterosexual National HIV Behavioral Surveillance (NHBS) study participants.

METHODS

Population

- Multi-site (N=23 US cities) heterosexually active adult male and female NHBS participants (N=9,342 reporting sexual intercourse with opposite sex partner in past 12 months), recruited via respondent driven sampling in 2019

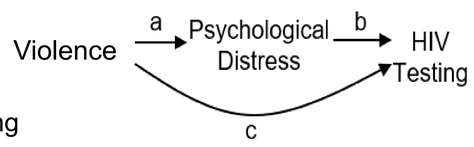
Study Definitions

- Violence: experience of physical/sexual violence, past 12 months
- Psychological distress: Kessler-6 Scale score ≥13, past 4 weeks
- HIV testing history: reported HIV test in past 12 months

Analysis

- Estimated adjusted prevalence ratios (aPR) and 95% CIs
- Used modified Poisson regression with generalized estimating equations clustering by recruitment chain
- Adjusted for age, gender, NHBS site, network size, race/ethnicity, housing status, education, marital status, non-injection drug use, binge drinking in past 30 days, number of opposite-sex partners in past year
- Assessed natural indirect effect (NIE) using difference method

Figure 1. Proposed Relationship between Variables



Direct Effect: c; Indirect Effect: a+b;

Among a sample of heterosexually active adults at increased risk for HIV, **violence** was **associated** with **psychological distress** and **lack of HIV testing.** Psychological distress did not appear to mediate the relationship between violence and HIV testing.

RESULTS

Figure 2. Distribution of Variables of Interest Among 9,342 Heterosexually Active Adults

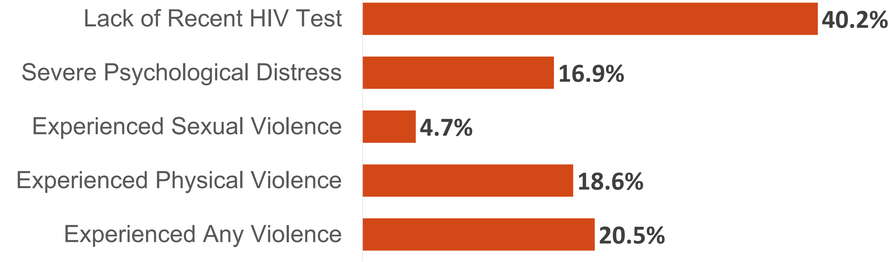


Table 1. Natural Indirect Effects (NIE) for Psychological Distress being Assessed as a Mediator between Violence and Lack of HIV testing

Relationship	Psychological Distress as a Mediator NIE (95% CI)
Any Violence and Lack of HIV Testing	0.94 (0.93-1.08)
Physical Violence and Lack of HIV Testing	1.01 (0.94-1.08)
Sexual Violence and Lack of HIV Testing	1.01 (0.90-1.14)

Table 2. Adjusted Prevalence Ratios for Relationships between Violence, Psychological Distress (PD), and Lack of HIV testing

Relationship	Any Violence	Physical Violence	Sexual Violence
Violence and Lack of HIV Testing	**0.95 (0.91-0.99)**	**0.94 (0.89-0.98)**	0.98 (0.92-1.05)
Violence and PD	**1.95 (1.77-2.14)**	**1.82 (1.65-2.01)**	**1.93 (1.73-2.16)**
PD and Lack of HIV Testing	1.04 (1.00-1.08)	1.04 (1.00-1.08)	1.04 (1.00-1.08)

Significant Results in Bold

CONCLUSIONS

- Participants who experienced any violence were more likely to have experienced psychological distress.
- Participants who experienced any or physical violence were less likely to have tested for HIV in the past year.
- Psychological distress did not appear to mediate the relationship between violence and HIV testing and was not associated with lack of HIV testing.
- More attention needs to be given to providing psychological care for those experiencing violence as they were more likely to experience psychological distress.

LIMITATIONS

- Violence and HIV testing were measured in the past 12 months while psychological distress was in the past 4 weeks
- We assumed violence, psychological distress, and HIV testing occurred in our hypothesized order
- All variables were self-reported and subject to social desirability or misclassification bias
- Those who participated in the study may differ from those who did not resulting in volunteer bias

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