Post-traumatic stress disorder symptoms and incarceration: The impact on sexual risk-taking and sexually transmitted infection among Black men who have sex with men in HPTN 061

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Traumatic experiences are associated with later criminal justice involvement, sexual risk-taking behavior, and in turn sexually transmitted infection (STI). Criminal justice involvement is a disruptive and stressful life event that may lead to social isolation, distress, risk-taking, and in turn potentially acquiring an STI. Black men and sexual minority groups are disproportionately impacted by criminal justice involvement and STI. However, research on the joint influence of community trauma working in tandem with the additional stress of incarceration on risk of STI is limited. The aim of the current study is to test the association between post-traumatic stress disorder (PTSD) symptomology and subsequent incarceration on sexual risk behavior and STI among Black men who have sex with men. We examined these relations in a subsample of the HIV Prevention Trials Network 061 Study participants, a longitudinal study of adult Black men who reported sex with male partners living in six major U.S. cities (Atlanta, Boston, Los Angeles, New York, San Francisco, Washington D.C.; N = 1153). We tested associations between recent incarceration measured at six-month follow-up, and sexual risk behavior (buying sex, selling sex, trading sex, multiple partners) and STI (syphilis, chlamydia, gonorrhea) measured at 12 month-follow-up. We tested whether these associations differed significantly for those with pre-incarceration PTSD symptoms (n = 604) versus those without PTSD symptoms (n= 929). PTSD symptomology was assessed at baseline using the SPAN, a self-report PTSD screener that assesses prior exposure to 15 possible traumas; a SPAN score of five or greater is considered a positive screen and indicates that the respondent should be further assessed further for PTSD. PTSD symptoms were elevated among participants who reported Hispanic ethnicity versus non-Hispanic (Odds Ratio [OR] = 1.66, 95% Confidence Interval [CI; 1.06, 2.60]), those who reported sex with male and female partners versus those with only male partners (OR =1.46, 95% CI [1.15, 1.86]), and those who had experienced a prior incarceration in their lifetime versus without prior incarceration (OR = 1.83, 95 CI% [1.42, 2.35]). There were no significant differences in the associations between recent incarceration and sexual risk behavior for those with and without PTSD. However, incarceration was associated with 2.06 times the odds of selling sex (95% CI [1.19, 3.57]) among those with PTSD symptoms, compared to 1.16 times the odds (95% CI [0.82, 3.16]) for participants without PTSD symptoms. Likewise, incarceration was associated with 4.32 times the odds of gonorrhea (95% CI [1.05, 17.68]) among participants with PTSD symptoms versus 1.99 times the odds for those without PTSD symptoms (95% CI [0.75, 5.30]). The current findings suggest there may be a compounding influence of PTSD symptoms and incarceration on both risk-taking and infection among Black men who have sex with men. These results highlight the potential importance of further assessment, intervention, and community referrals for newly released racial and sexual minority men with PTSD symptoms, who may be at a heightened risk for contracting an STI.