# Risky sexual behavior and substance use among HIV-infected and high-risk individuals after six months of patient navigation

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## Background

- Patient navigation is an emerging model of patient-centered intervention that has been shown to reduce barriers to care and improve medical outcomes in persons with chronic illness [1]. Limited research has examined the impact of this model in persons with HIV and at high risk for HIV.
- Positive Impact, an HIV service organization in Atlanta, GA, and the GRU Infectious Disease (ID) clinic adopted **STEP**: **S**ubstance Abuse **T**reatment **E**ngagement **P**rogram, an ongoing patient navigation and motivational interviewing program for substance-abusing persons with HIV or at high risk for HIV. STEP participation has been linked to significant improvements in several psychosocial and medical outcomes [2,3].
- As substance and alcohol abuse are strongly associated with the likelihood of engaging in unprotected sex [4,5], patient navigation targeted at alcohol or substance abuse may indirectly reduce sexual risk behavior and ultimately HIV transmission.
- The present study examined sexual behavior outcomes related to STEP participation.

## Methods

- Participants (**Table 1**) were 156 sexually active adults enrolled in STEP for at least 6 months through the GRU ID clinic in Augusta, GA or Positive Impact.
- Participation criteria included being either 1) HIV-positive with self-reported substance/alcohol abuse in the past 12 months and/or a desire to change substance/alcohol use, or 2) at risk for HIV, as defined by self-reported substance/alcohol abuse.
- Participants answered items regarding frequency of sexual behavior, unprotected sex, and substance and alcohol use as part of interviews at intake and 6-month follow-up.
- Data were analyzed using t-tests for continuous variables and McNemar tests for categorical variables.

## Results

- Changes in mean values from intake to follow up are presented in **Table 2.** There were decreases in the number of days per month in which participants reported using drugs and alcohol (ps < .001), and the percentage of participants who had unprotected sex in the previous 30 days (46.8% at intake, 10.9% at follow-up; p < .001).
- At follow-up, participants reported fewer sexual encounters (p < .001), lower frequency of unprotected sex (p < .001), and lower frequency of unprotected sex with partners who used IV drugs (p < .02) or who were high (p < .01), relative to baseline. However, frequency of sex with a partner with HIV/AIDS did not decrease significantly (p = .18).

**Table 1. Participant characteristics**

| | M (SD) |
|---|---|
| Age | 39.8 (10.6) |
| | % (N) |
| Gender | |
| Male | 77.6 (121) |
| Female | 21.8 (34) |
| Transgender | 0.6 (1) |
| Race/Ethnicity | |
| Black | 73.7 (115) |
| White | 12.2 (19) |
| Hispanic | 8.3 (13) |
| Other | 5.7 (9) |

**Table 2. Outcome variable means at intake and follow-up. **p < .001, *p < .05**

| | Intake M (SD) | Follow-up M (SD) |
|---|---|---|
| Days per month using alcohol** | 6.2 (9.1) | 2.0 (5.7) |
| Days per month using illegal drugs** | 11.7 (10.4) | 3.6 (8.4) |
| Number of sexual encounters** | 7.4 (6.5) | 4.2 (5.1) |
| Frequency of unprotected sex** | 3.1 (5.9) | 1.0 (3.5) |
| - With partners with HIV or AIDS | 1.3 (3.5) | 0.8 (3.2) |
| - With partners who use IV drugs* | 0.4 (1.7) | 0.0 (0.0) |
| - With partners who were high* | 1.9 (5.5) | 0.5 (2.5) |

## Conclusions

- Patients who engaged in 6 months of patient navigation reported significant decreases in alcohol, and substance use, as well as unprotected sex with high-risk partners.
- These preliminary findings are promising and provide support for the use of patient navigation for persons with HIV or at high risk for HIV. It may be that STEP contributed directly to reductions in alcohol and substance use and indirectly to improvements in behaviors that are highly correlated with substance and alcohol use, such as risky sex.
- Future research using a formal control group should investigate the mechanisms by which patient navigation may contribute to sexual health behavior change in persons living with or at high risk for HIV who are abusing alcohol or substances.

## References & Acknowledgements

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