Pre-Custody HIV Risk Behavior as a Factor in the Effectiveness of WaySafe


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Abstract

Effective interventions for reducing HIV and hepatitis infections in criminal justice (CJ) populations are a cornerstone for prevention. However, gender and pre-incarceration risk factors are often associated with how well an offender utilizes education and training.

Aim: This study reports on pre-custody HIV risk behaviors and gender in the effectiveness of WaySafe, a prison-based group intervention designed to help offenders gain cognitive skills for avoiding risky behaviors and planning risk reduction strategies for the future.

Method: HIV risk behaviors were measured using the TCU HVHP form, which addresses HIV/AIDS injection risk, sex risk, condom attitudes, and AIDS concerns. The sample included 959 males and females in 8 prison-based drug treatment programs. Correlations were used to test relationships of pre-custody HIV risk with pre- and posttest changes for scales measuring HIV knowledge confidence, risky sex and drug behaviors, risk reduction planning, and HIV prevention skills.

Results: The TCU HVHP form scales were confirmed by TCU’s IRB and had satisfactory reliabilities. For WaySafe participants, pre-custody HIV risk was related to pre-posttest changes measuring HIV knowledge confidence, risky sex and drug behaviors, risk reduction planning, and HIV prevention skills. Results differed by gender.

Conclusions: While WaySafe is supported as being a useful intervention for addressing risky sexual and drug use, pre-custody HIV risk may be a factor in differential effectiveness among males and females.

WaySafe Intervention

- 6 one-hour, highly interactive group sessions held weekly
- Delivered to offenders during the last weeks of their incarceration by counselors trained to conduct the sessions
- Group sessions include self-paced workbook assignments that are completed between sessions
- Incorporates TCU Mapping-Enhanced counseling, which is included in SAMHSA’s NREPP
- Focus on motivation, decision-making, overcoming cognitive roadblocks to change, and personal risk reduction planning

Research Questions

Do the HVHP scales show reliability?
Do pre-incarceration risk factors for HIV influence post-intervention outcomes?
Are there gender differences in pre/posttest intervention changes based on pre-custody HIV risk?

Background

The Disease Risk Reduction (DRR) project focuses on developing strategies to help offenders adequately plan and apply HIV and hepatitis risk reduction principles during the crucial community re-entry phase after imprisonment. The WaySafe intervention was developed to meet the challenges of providing education on sensitive materials in correctional settings and promoting integrated services to offenders at-risk for infectious diseases.

This 5-year project includes 2 major research phases intended to reduce drug and sex in CJ populations. The first phase includes the present WaySafe intervention effectiveness studies and the second phase will address implementation and adoption in other CJ settings.

Methods

Clients from 8 prison-based substance abuse treatment programs in 2 States were recruited to participate in the study. Informed consent was obtained and approved by TCU’s IRB. Subjects were randomly assigned to either attend WaySafe groups during the 10 week period prior to their release or participate in treatment-as-usual (TAU) consisting of each program’s regular treatment regimen. Both WaySafe and TAU subjects completed the HVHP scales and the WaySafe Posttest assessment. Following completion of the 10-week WaySafe intervention, both groups completed the Posttest assessment.

Results

Correlations were used to assess the significance of relationships between changes on pre/posttest scales and pre-custody HIV risk.

The TCU HVHP form contains 17 self-report items that assess HIV Knowledge Confidence, Risky Sex, Risky Drug Use, Risk Reduction Plan, and Prevention Skills. The measure was positively related to pre/post changes for females in the WaySafe intervention.

Scalres and Reliabilities

<table>
<thead>
<tr>
<th>Scales</th>
<th>Pearson R</th>
<th><strong>p&lt;.05</strong></th>
<th>*<strong>p&lt;.01</strong></th>
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<tbody>
<tr>
<td>Injection Risk</td>
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<td><strong>p&lt;.01</strong></td>
<td></td>
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<tr>
<td>Condom Attitudes</td>
<td>.89</td>
<td><strong>p&lt;.01</strong></td>
<td></td>
</tr>
<tr>
<td>Risky Drug Use</td>
<td>.86</td>
<td><strong>p&lt;.01</strong></td>
<td></td>
</tr>
<tr>
<td>Risk Reduction Plan</td>
<td>.78</td>
<td><strong>p&lt;.01</strong></td>
<td></td>
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<tr>
<td>Prevention Skills</td>
<td>.64</td>
<td><strong>p&lt;.01</strong></td>
<td></td>
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</tbody>
</table>

Correlations of HVHP Scores with Pretest / Posttest Changes for Total Sample in WaySafe Intervention

<table>
<thead>
<tr>
<th>Total (N=493)</th>
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<tbody>
<tr>
<td>HIV Knowledge Confidence</td>
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<tr>
<td>Risky Sex</td>
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<tr>
<td>Risky Drug Use</td>
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<tr>
<td>Risk Reduction Plan</td>
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<tr>
<td>Prevention Skills</td>
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</tbody>
</table>

WaySafe was designed to improve cognitive skills related to reducing risk HIV attitudes and behaviors in prison-based populations. It was anticipated that subjects reporting higher risk HIV attitudes and behaviors before incarceration might gain more from the intervention.

For the total WaySafe sample, the HVHP measure of Condom Attitudes was positively correlated with pre/posttest changes on the WaySafe scales, regardless of gender.

For the total sample, the HVHP measure of Condom Attitudes was positively correlated with pre/posttest changes in 1 of 3 scales—HIV Knowledge Confidence, Risky Sex, and Risk Reduction Plan, and the HVHP Intervention Risk measure was related to pre/posttest changes on Risky Drug Use.

The correlations of HVHP measures with pre/posttest changes differed for males and females participating in WaySafe.

For males, the HVHP Injection Risk measure was positively correlated with pre/posttest changes on Risky Sex, Risky Drug Use, and Risk Reduction Plan, and Prevention Skills. Also, HVHP Condom Attitudes was positively correlated with changes on the HIV Knowledge Confidence and Risky Sex scales.

For females, the HVHP Sex Risk was negatively correlated with changes on pre/posttest changes on Risky Sex and Prevention Skills, suggesting that women with a greater history of sex risk were less likely to improve on these measures. For women, the HVHP Condom Attitudes measure was positively related to pre/post changes for Risk Reduction Plan.

Acknowledgments

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Sample

Of the 959 subjects in the study, 51% were White, 24% African American, and 20% Hispanic. The average age was 34, with 64% reporting completion of a high school diploma, GED, or higher education. Forty-eight percent were single, 24% married, and 29% divorced, separated, or widowed. Forty-two percent were female.

Measures

The TCU HVHP form contains 17 self-report items that make up 4 scales on pre-custody risks associated with injection drug use and sexual activities, as well as health concerns and related attitudes. The scales are Injection Risk, Condom Attitudes, Sex Risk, and AIDS Concerns. The WaySafe Pre/Posttest Assessment contains 92 self-report items from which scales reflecting HIV Knowledge Confidence, Risky Sex, Risky Drug Use, Risk Reduction Planning, and Prevention Skills were constructed.

Responses were on a 5-point scale (1=‘strongly disagree’ to 5=‘strongly agree’). After reversing reverse-scored items, scale scores were computed by averaging the item values within a scale and then multiplying by 10, resulting in a score range of 10-50 for each scale.

Correlations of HVHP Scores with Pretest / Posttest Changes for Females in WaySafe Intervention

For the treatment as usual’ group, none of the HVHP measures were significantly correlated with pre/posttest changes on the WaySafe scales, regardless of gender.

For the total WaySafe sample, the HVHP measure of Condom Attitudes was positively correlated with pre/posttest changes on 1 of 3 scales—HIV Knowledge Confidence, Risky Sex, and Risk Reduction Plan, and the HVHP Intervention Risk measure was related to pre/posttest changes on Risky Drug Use.

The correlations of HVHP measures with pre/posttest changes differed for males and females participating in WaySafe.

For males, the HVHP Injection Risk measure was positively correlated with pre/posttest changes on Risky Sex, Risky Drug Use, and Risk Reduction Plan, and Prevention Skills. Also, HVHP Condom Attitudes was positively correlated with changes on the HIV Knowledge Confidence and Risky Sex scales.

For females, the HVHP Sex Risk was negatively correlated with changes on pre/posttest changes on Risky Sex and Prevention Skills, suggesting that women with a greater history of sex risk were less likely to improve on these measures. For women, the HVHP Condom Attitudes measure was positively related to pre/post changes for Risk Reduction Plan.

Results

WaySafe was designed to improve cognitive skills related to reducing risk HIV attitudes and behaviors in prison-based populations. It was anticipated that subjects reporting higher risk HIV attitudes and behaviors before incarceration might gain more from the intervention.

For the combined sample, there is some support that those with poorer pre-custody attitudes toward condom use were likely to gain more from pretest to posttest on measures related to WaySafe goals. However, males and females differed with regard to these relationships.

Males with more injection risk and poorer condom attitudes tended to gain more from WaySafe. Females who indicated a greater history of sex risk were less likely to improve on WaySafe measures.

The results suggest that pre-custody risk factors for HIV may differ between men and women and should be a consideration in education and prevention efforts in criminal justice settings.