HIV–Infected Women Who Do and Do Not Report Intimate Partner Violence: CD4 Counts, Opportunistic Infections, and Antiretroviral Adherence

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Acknowledgment

Co–Authors

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HIV & Women

- **Global**
  - 50% new HIV diagnoses worldwide
  - In 2008, 15.7 million living with HIV
  - Infected through heterosexual sex

- **US**
  - 27% of all new HIV diagnoses
  - 280,000 living with HIV
  - 5th cause of HIV-related death
1,200 deaths and 2 million injuries in US each year associated with IPV
- Reproductive/sexual problems
- Anxiety & depression
- Substance abuse
- Stressful life events
IPV & HIV Intersection

- HIV+ greater risk IPV
- Hx of violence intensifies HIV risk
- IPV barrier to care
This study investigated the relationship between IPV and disease progression as measured by CD4 count, OI, and antiretroviral adherence among English and Spanish-speaking HIV-infected women who did and did not report IPV.
Hypotheses

- Women with HIV who report physical or sexual IPV on the SVAWS in the past 12 months will:
  - have significantly lower mean CD4 counts than women who do not report IPV in the past 12 months
  - record more opportunistic infections as listed by the CDC, as documented on their medical record during the past 12 months, than women who do not report intimate partner violence in the past 12 months
Hypotheses

- Women with HIV who report physical or sexual IPV on the SVAWS in the past 12 months will:
  - have significantly lower mean DVS–MMAS adherence scores than women who do not report IPV in the past 12 months
  - have a greater proportion of detectable viral replication on viral load tests than women who do not report intimate partner violence in the past 12 months
Theoretical Framework

- Neuman Systems Model
Setting

- Publicly–funded HIV specialty clinic
  - 4600 primarily non-insured pts.
  - 1400 women

- Clinic demographics
  - 71% Black non–Hispanic
  - 20% Hispanic
  - 8% White non–Hispanic
  - 1% Other
Sample Size

- Pilot
  - $d = .23$ (small ES)
  - Power = .80
  - $\alpha = .0125$ (4 hypotheses)
  - $n = 722$
Eligibility

- Women
- 18 years or older
- Speak English or Spanish
- Have been on ART for last 12 months
- Have had a partner for last 12 months
Instruments

- Demographic data form
- Data Collection Form
  - Verification of ART
  - Viral load, CD4, OI’s
- Severity of Violence Against Women Scale
  Cronbach’s $\alpha = .98$
- Domestic Violence Specific Morisky Medication Adherence Scale
  Cronbach’s $\alpha = .73$
Data Collection

- Individual recruitment: general waiting areas
- 27 min interview (max time)
- Incentive
- MR data abstraction
## Demographics of Sample

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>IPV Yes (n = 142)</th>
<th>IPV No (n = 130)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Language</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>126 (88.7%)</td>
<td>106 (81.5%)</td>
</tr>
<tr>
<td>Spanish</td>
<td>16 (11.3%)</td>
<td>24 (18.5%)</td>
</tr>
<tr>
<td><strong>Ethnicity/Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black non-Hispanic</td>
<td>107 (75.4%)</td>
<td>85 (65.4%)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>24 (16.9%)</td>
<td>32 (24.6%)</td>
</tr>
<tr>
<td>White non-Hispanic</td>
<td>7 (4.9%)</td>
<td>9 (6.9%)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20–34</td>
<td>21 (14.8%)</td>
<td>22 (16.9%)</td>
</tr>
<tr>
<td>35–49</td>
<td>78 (54.9%)</td>
<td>65 (50.0%)</td>
</tr>
<tr>
<td>50–64</td>
<td>41 (28.9%)</td>
<td>41 (31.5%)</td>
</tr>
<tr>
<td>65+</td>
<td>2 (1.4%)</td>
<td>2 (1.5%)</td>
</tr>
</tbody>
</table>
## Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Statistic</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD4 Count</td>
<td>$t = -1.41$</td>
<td>.08</td>
</tr>
<tr>
<td>Opportunistic Infections</td>
<td>$t = 2.64$</td>
<td>&lt;.0125</td>
</tr>
<tr>
<td>DVSMMAS</td>
<td>$t = 4.91$</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Viral Load</td>
<td>Fisher’s Exact = 65.5%</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>
Limitations

- Sample size

- Convenience sample—all from one clinic
  - Willing to be interviewed
  - Only those coming to clinic during 6–wk period August & September 2010

- Violence scale measured only physical & sexual
HIV–infected women who reported IPV in past 12 months had significantly more OI, significantly lower ART adherence, and a greater proportion of detectable VLs compared to women who did not report IPV.
Implications for Health Care

- Willing to disclose their experiences of violence
- 52% IPV+ associated with more OIs, less ART adherence, & more viral replication

- Identify IPV as:
  - contributor to disease progression
  - a barrier to ART

- Intervene: assess regularly
Recommendations

- Extend definition of IPV to include emotional abuse
- Replication studies with larger sample size & sample from diverse geographical & clinical settings
- Development & testing of EB interventions to increase ART adherence & reduce disease progression
Questions

Thank You!