Medical Mistrust Predicts Lower Longitudinal Medication Adherence Among African American Men

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African American Men & HIV-related Disparities

• African-American men living with HIV show worse health outcomes compared to Whites including:
  • Lower antiretroviral treatment adherence (Johnson et al, 2003; Levine et al., 2006)
  • Lower likelihood of achieving viral suppression (Weintrob et al., 2009)
Medical Mistrust

• Medical mistrust includes distrust of the medical system, providers, and treatments (LaVeist et al., 2000)

• Among African Americans, medical mistrust has been shown to be high (Armstrong et al., 2008)

• HIV conspiracy beliefs, a form of medical mistrust, has been linked to lower medication adherence among African American men with HIV (Bogart et al., 2010)
Study Aim

• To investigate whether medical mistrust among African-American men predicts lower antiretroviral medication adherence over time.
Methods

Participants

- 140 African American men living with HIV in Los Angeles, CA
  - Eligible if taking antiretroviral medications
- Recruited at a clinic and social service agencies in Los Angeles
- Data collected via audio computer assisted interview (ACASI) at baseline and 3- and 6-month follow-up
Methods
Medical Mistrust Measure

Assessed with two subscales by LaVeist and colleagues (2000)

- 4-item racism-related mistrust scale (e.g. “Racial discrimination in a doctor's office is common”)
- 5-item general medical mistrust scale (e.g. “Patients have sometimes been deceived or misled at hospitals”)
- Response options: 1, Strongly Disagree; 2, Disagree; 3, Agree; 4, Strongly Agree
- Possible average scores on both scales ranged from 0 to 4
Methods: Medication Adherence

• The Medication Event Monitoring System (MEMS) was used to assess adherence electronically at baseline and 3- and 6-month follow-up
Statistical Analyses

• A multivariate model predicted adherence at 3- and 6-month follow-up with both forms of mistrust entered together

• Both mistrust and adherence varied in time
  – e.g. mistrust at 3-month follow-up predicted adherence at 6-month follow-up

• Analyses controlled for:
  – number of days since baseline, socio-demographic characteristics (age, education, income), medication side effect severity, health care barriers
# Socio-demographics

<table>
<thead>
<tr>
<th>Age – Mean (SD)</th>
<th>44.8 (8.6) years</th>
</tr>
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<tbody>
<tr>
<td>Less than high school diploma</td>
<td>23.6%</td>
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<tr>
<td>Low income (annual &lt;$5K)</td>
<td>36.3%</td>
</tr>
<tr>
<td>Employment (FT or PT)</td>
<td>13.6%</td>
</tr>
<tr>
<td>MSM</td>
<td>85.6%</td>
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</tbody>
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Descriptive Statistics

• Medical Mistrust
  – General mistrust (5 items)
    • M(SD) = 2.66 (0.58)
    • 92% agreed with at least 1 item
  – Racial mistrust (5 items)
    • M(SD) = 2.59 (0.62)
    • 80% agreed with at least 1 item
  – Scales were not significantly associated (r = .12, p = .18)

• Medication Adherence
  – On average participants took 59.3% of doses (SD=30.6%, range 0-100%) over the 6-months
Results

General medical mistrust significantly predicted lower medication adherence at follow-up, $b=-.08$, $se=.04$, $p=.03$.

Racism-related mistrust did not predict medication adherence at follow-up, $b=.05$, $se=.03$, $p=.12$. 

<table>
<thead>
<tr>
<th>Effect</th>
<th>Solution for Fixed Effects</th>
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<tbody>
<tr>
<td>Intercept</td>
<td>0.6479 0.2096 134 3.09 0.0024</td>
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<tr>
<td>medmis_nr</td>
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<tr>
<td>medmis_re</td>
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<td>MEDINTER</td>
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Conclusion and Implications

• Medical mistrust may be contributing to poor health outcomes in this population.

• Intervention efforts in the medical system and at the individual level that target mistrust may improve adherence and health-related outcomes for African-Americans living with HIV.
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