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# Medical Mistrust Predicts Lower Longitudinal Medication Adherence Among African American Men

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HEALTH



# 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

|                                      |                  |
|--------------------------------------|------------------|
| <b>Age – Mean (SD)</b>               | 44.8 (8.6) years |
| <b>Less than high school diploma</b> | 23.6%            |
| <b>Low income (annual &lt;\$5K)</b>  | 36.3%            |
| <b>Employment (FT or PT)</b>         | 13.6%            |
| <b>MSM</b>                           | 85.6%            |

# 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

| Solution for Fixed Effects |          |                |     |         |         |
|----------------------------|----------|----------------|-----|---------|---------|
| Effect                     | Estimate | Standard Error | DF  | t Value | Pr >  t |
| Intercept                  | 0.6479   | 0.2096         | 134 | 3.09    | 0.0024  |
| medmis_nr                  | -0.07962 | 0.03539        | 75  | -2.25   | 0.0274  |
| medmis_re                  | 0.04923  | 0.03159        | 75  | 1.56    | 0.1234  |
| days                       | -0.00045 | 0.000329       | 75  | -1.37   | 0.1736  |
| AGE                        | 0.003774 | 0.003327       | 134 | 1.13    | 0.2587  |
| loweducb                   | 0.1167   | 0.05675        | 134 | 2.06    | 0.0417  |
| lowincb                    | -0.07375 | 0.05413        | 134 | -1.36   | 0.1754  |
| hcbarsb                    | -0.04966 | 0.02810        | 134 | -1.77   | 0.0795  |
| MEDINTER                   | -0.03791 | 0.02198        | 134 | -1.72   | 0.0868  |

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,  $b=.05$ ,  $se=.03$ ,  $p=.12$ .

# 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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