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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

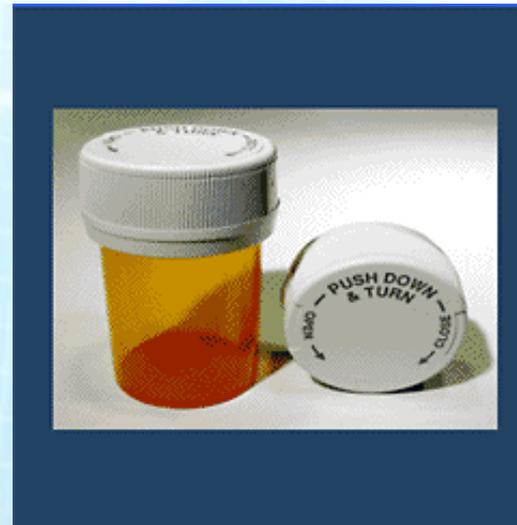
Assessed with two subscales by LaVeist and colleagues (2000)

- 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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