

# TAKING CARE OF ME

## Evidence-Informed Structural Intervention

### INTERVENTION DESCRIPTION

#### Goal of Intervention

- Increase HIV treatment initiation
- Improve viral suppression and achieve undetectable viral load
- Increase retention in HIV care

#### Target Population

- Patients attending HIV treatment clinics

#### Brief Description

*Taking Care of Me (TCOM)* is a theory-based narrative intervention video delivered in HIV clinic waiting rooms. The 29-minute video depicts persons overcoming barriers to starting HIV treatment, taking medication as prescribed, and keeping medical appointments. It incorporates key prevention messages into dramatic soap-opera style content involving diverse characters. TCOM's conceptual framework combines the use of Social Cognitive Theory, the Information-Motivation-Behavioral Skills Model, and Social Action Theory, which together address cognitive and behavioral factors related to study outcomes. The video includes three vignettes and a 2-part animation about main characters who model overcoming challenges to optimal HIV care. The video is played on a continuous loop. Waiting room posters use images from TCOM to direct patients' attention to the video and reinforce prevention messages.

#### Theoretical Basis

- Information-Motivation-Behavioral Skills Model
- Social Action Theory
- Social Cognitive Theory

#### Intervention Duration

- Ongoing

#### Intervention Setting

- Clinic waiting rooms

#### Deliverer

- Video

#### Delivery Methods

- Video

#### Structural Components

- Mass Media: Narrative intervention
  - HIV treatment and adherence narrative drama video shown to patients in an HIV clinic waiting room

## INTERVENTION PACKAGE INFORMATION

For information on training and intervention-related materials, please visit [CDC's HIV Effective Interventions website](#).

Please contact **Andrew Margolis** for details on interventions materials, email: [avm8@cdc.gov](mailto:avm8@cdc.gov)

## EVALUATION STUDY AND RESULTS

### Study Location Information

The original evaluation was conducted in Atlanta, GA; Huntsville, AL; and Miami, FL, between August 2015 and March 2017. Data from the Miami site were excluded from data analyses by the researchers because data from the electronic medical record (EMR) system were incomplete.

### Key Intervention Effects

- Increased HIV treatment initiation
- Improved viral suppression and achieved undetectable viral load

### Recruitment Settings

HIV clinics located in a community with high AIDS prevalence, used an EMR system, and had a patient population that was >55% black or African American and/or Hispanic or Latino, and >500 HIV-infected patients.

### Eligibility Criteria

Men and women were eligible if they were HIV clinic patients during the 20-month study period.

### Study Sample

The *TCOM* intervention period participants for the **Atlanta site** (n= 1302) are characterized by the following:

- 90.3% Black or African American, 4.7% White, 2.2% Hispanic/Latino, 2.8% Other
- 76.8% male, 21.5% female, 1.7% transgender
- 4.1% 18-24 years old, 33.9% 25-34 years old, 62.1% 35-87 years old
- 56.9% men who have sex with men (MSM), 36.6% heterosexual, 2.3% persons who inject drugs

The *TCOM* intervention period participants for the **Huntsville site** (n= 721) are characterized by the following:

- 48.1% Black or African American, 43.8% White, 6.0% Hispanic/Latino, 2.1% Other
- 75.5% male, 23.0% female, 1.5% transgender
- 4.1% 18-24 years old, 33.9% 25-34 years old, 62.1% 35-87 years old
- 58.7% men who have sex with men (MSM), 35.2% heterosexual, 3.3% persons who inject drugs

### Comparison

The study uses a quasi-experimental design. Data from the *TCOM* intervention period between June 2016 and March 2017 were compared to data from the pre-implementation period within each site separately, between August 2015 and May 2016 (Atlanta, n = 1327; Huntsville, n = 653).

## Relevant Outcomes Measured

- HIV treatment initiation was measured using a patient’s receipt of an antiretroviral (ART) prescription on, before, or within 7 days after the index visit.
- Viral suppression was measured as whether a patient was virally suppressed (<200 RNA copies/mL) or had an undetectable viral load (<50 RNA copies/mL) by 6 months after the index visit.
- Retention in HIV care was measured using an adaptation of the Health Resources and Services Administration’s (HRSA) definition: all clients who have had at least 2 or more outpatient ambulatory medical care (OAMC) visits for any reason at least 90 days apart in the past year divided by all active clients who have had at least one such visit within 1-183 days, and are greater than 12 years. The formula was adapted to account for the study’s 10-month follow-up.

## Participant Retention

Because participant retention is not a criterion for evaluating structural intervention studies, PRS does not evaluate this information.

## Significant Findings on Relevant Outcomes

*Among patients in the Atlanta-based clinic:*

- There was a significantly greater percentage of post-intervention patients who initiated HIV treatment on, before, or within 7 days after the index visit compared to pre-intervention patients (60.5% vs 52.1%, percentage point change=8.4, 95% CI= 4.6—12.2, p<0.01).
- There was a significantly greater percentage of post-intervention patients who were virally suppressed at 6 months after the index visit compared to pre-intervention patients (58.7% vs 41.1%, percentage point change=17.5, 95% CI= 12.9—22.2, p<0.01). Additionally, there was a significantly greater percentage of post-intervention patients who were virally suppressed at 6 months compared to pre-intervention patients among the following sub-groups:
  - Male patients (57.5% vs 40.7%, percentage point change=16.8, 95% CI=11.4—22.2, p<0.01)
  - Female patients (61.2% vs 42.6%, percentage point change=18.6, 95% CI=9.0—28.1, p<0.01)
  - Black or African-American patients (58.3% vs 41.8%, percentage point change=16.5, 95% CI=11.6—21.4, p<0.01)
  - Hispanic patients (76.0% vs 29.4%, percentage point change=46.6, 95% CI=18.3—75.0, p<0.01)
  - White patients (53.6% vs 30.4%, percentage point change=23.3, 95% CI=2.4—44.2, p=0.03)
  - Combined White, Hispanic, and patients of Other race/ethnicity (e.g., American Indian/Alaska Native, Pacific Islander/Native Hawaiian, multiple races, and not specified) (62.2% vs 33.6%, percentage point change=28.6, 95% CI= 13.1—44.0, p<0.01)
  - Patients aged 35-87 years (62.7% vs 39.0%, percentage point change=23.7, 95% CI=18.1—29.4, p<0.01)
  - MSM patients (61.9% vs 38.2%, percentage point change=23.7, 95% CI=16.3—31.1, p<0.01)
  - Heterosexual patients (56.7% vs 43.5%, percentage point change=13.2, 95% CI=6.9—19.6, p<0.01)
  - Patients diagnosed with HIV between 1-5 years (59.4% vs 40.9%, percentage point change=18.5, 95% CI=11.1—26.0, p<0.01)
  - Patients diagnosed with HIV between 6-10 years (51.2% vs 38.7%, percentage point change=12.5, 95% CI=3.4—21.5, p=0.01)
  - Patients diagnosed with HIV >10 years (66.6% vs 44.0%, percentage point change=22.6, 95% CI=13.8—31.5, p<0.01)
- There was a significantly greater percentage of post-intervention patients who had an undetectable HIV viral load at 6 months after the index visit compared to pre-intervention patients (24.9% vs 9.7%, percentage point change=15.2, 95% CI=11.8—18.6, p<0.01). Additionally, there was a significantly greater

percentage of post-intervention patients who had an undetectable viral load at 6 months compared to pre-intervention patients among the following sub-groups:

- Male patients (23.9% vs 7.7%, percentage point change=16.3, 95% CI=12.5—20.0,  $p<0.01$ )
- Female patients (28.0% vs 16.1%, percentage point change=11.9, 95% CI=4.0—19.8,  $p<0.01$ )
- Black or African-American patients (25.0% vs 9.9%, percentage point change=15.1, 95% CI=11.6—18.7,  $p<0.01$ )
- Combined White, Hispanic, and patients of Other race/ethnicity (e.g., American Indian/Alaska Native, Pacific Islander/Native Hawaiian, multiple races, and not specified) (23.7% vs 7.5%, percentage point change=16.1, 95% CI=5.0—27.3,  $p<0.01$ )
- Patients aged 25-34 years (18.5% vs 5.5%, percentage point change=13.1, 95% CI=8.0—18.2,  $p<0.01$ )
- Patients aged 35-87 years (29.1% vs 11.7%, percentage point change=17.4, 95% CI=12.9—21.9,  $p<0.01$ )
- MSM patients (29.6% vs 14.4%, percentage point change=15.2, 95% CI=9.1—21.3,  $p<0.01$ )
- Heterosexual patients (20.9% vs 6.6%, percentage point change=14.3, 95% CI=10.2—18.5,  $p<0.01$ )
- Patients of Other HIV risk (e.g., people who inject drugs, MSM who inject drugs, hemophilia, transfusion, perinatal, and not specified) (33.9% vs 7.3%, percentage point change=26.6, 95% CI=12.6—40.6,  $p<0.01$ )
- Patients diagnosed with HIV <1 year (19.8% vs 5.8%, percentage point change=14.0, 95% CI=2.0—26.0,  $p=0.02$ )
- Patients diagnosed with HIV between 1-5 years (23.2% vs 5.4%, percentage point change=17.8, 95% CI=12.9—22.7,  $p<0.01$ )
- Patients diagnosed with HIV between 6-10 years (20.2% vs 11.8%, percentage point change=8.4, 95% CI=1.8—15.0,  $p=0.01$ )
- Patients diagnosed with HIV >10 years (33.2% vs 14.7%, percentage point change=18.5, 95% CI=11.1—26.0,  $p<0.01$ )

### Strengths

- None identified

### Considerations

- There was no significant effect for retention in HIV care at the Atlanta site (73.6% vs 71.5%, percentage point change=2.1, 95% CI= -1.5—5.8,  $p=0.26$ ).
- Although there were significant effects for initiation of HIV treatment ( $p<0.01$ ), viral suppression ( $p<0.01$ ) and undetectable viral load ( $p=0.01$ ), data from the Huntsville site did not meet evidence-informed criteria because of a significant negative effect for undetectable viral load at 6 months after the index visit (65.8% vs 73.4%, percentage point change= -7.6, 95% CI= -12.9— -2.3,  $p=0.01$ ).
- Data from the Miami site were excluded from data analyses by the researchers because EMR data were incomplete.
- Exposure to the video was not measured by the researchers, so it is unknown if patients paid attention to the video or saw it multiple times.
- This intervention does not meet evidence-based criteria for the Medication Adherence (MA) Chapter because the evaluation consisted of a one-group (pre-post) research design.

### Funding

Health and Human Services Secretary's Minority AIDS Initiative and Centers for Disease Control and Prevention (contract number 200-2013-57577)

## REFERENCES AND CONTACT INFORMATION

Neumann, M. S., Plant, A., Margolis, A. D., Borkowf, C. B., Malotte, C. K., Rietmeijer, C. A., . . . Klausner, J.D. (2018). [Effects of a brief video intervention on treatment initiation and adherence among patients attending human immunodeficiency virus treatment clinics](#). *PLoS ONE*, *13*, e0204599.

**Researcher:** **Andrew D. Margolis, MPH (CAPT, USPHS)**

Centers for Disease Control and Prevention

Division of HIV/AIDS Prevention

1600 Clifton Road, NE

Mailstop US8-5

Atlanta, GA 30329

**Email:** [avm8@cdc.gov](mailto:avm8@cdc.gov)

