

MARTAS (MODIFIED ANTIRETROVIRAL TREATMENT ACCESS STUDY)

Evidence-Based for Linkage to HIV Care

Evidence-Based for Retention in HIV Care

INTERVENTION DESCRIPTION

Goal of Intervention

- Improve linkage to HIV care
- Improve retention in HIV care

Intended Population

- Adult clinic patients recently diagnosed with HIV who are not in HIV care

Brief Description

MARTAS is a modified version of *ARTAS* and is an individual-level, multi-session nurse-delivered case management linkage-to-care intervention for persons with HIV who are out of care. The intervention connects participants to a Linkage Coordinator (LC), who is a trained nurse, and who will encourage clients to identify and use personal strengths, set personal goals, and establish an effective relationship with the LC. There are six sessions with the LC (three in-person and three by phone) and text messaging reminders during a three-month period. The sessions aim to link clients to HIV care and address: depression, stigma as a barrier to care, HIV status disclosure, and substance use disorder issues. LCs may accompany clients to a government AIDS Center or a regional department of an AIDS Center or may contact HIV physicians or community managers of non-governmental organizations based at an AIDS Centers or their regional departments.

Theoretical Basis

- Strengths-Based Perspective in Social Work
- Theory of Empowerment
- Theory of Self-Efficacy

Intervention Duration

- Six sessions delivered over 3 months (or until the patient links to medical care with explicit engagement and retention goal). The average duration of face-to-face sessions was 52.4 (SD 33.3) minutes; the average duration of the phone sessions was 21.5 (SD 9.5) minutes.

Intervention Settings

- Clinical sites (STI clinics, drug dependence clinics, ID clinics)
- Phone/text

Deliverer

- Trained nurse

Delivery Methods

- Appointment reminders (calls/texts)
- Case management
- Goal/plan

Structural Components

There are no structural components reported for this study.

INTERVENTION PACKAGE INFORMATION

An intervention package is not available at this time. Please contact **Oleksandr Neduzhko**, Ukrainian Institute on Public Health Policy, 5 Biloruska Street, Office 20, 27, Kyiv 04050, Ukraine.

Email: neduzhko@uiphp.org.ua for details on intervention materials.

EVALUATION STUDY AND RESULTS**Study Location Information**

The original evaluation was conducted in the Dnipropetrovsk, Mykolaiv, and Odesa regions, Ukraine between October 2015 and March 2018.

Key Intervention Effects

- Improved linkage to HIV care
- Improved retention in HIV care

Recruitment Settings

Clinical sites

Eligibility Criteria

Patients who tested HIV-positive within the past 12 months; after the first 6 months of recruitment, the eligibility criterion was expanded to all persons with HIV attending the study sites who had never been linked to HIV care.

Exclusion criteria included: being previously linked to HIV care, cognitive impairment, participation in a similar linkage-to-care intervention, plans to move out of the study region before the end of study follow-up, and currently being under criminal investigation.

Study Sample

The baseline study sample of 274 patients is characterized by the following:

- *64% male; 36% female*
- *Median age of 36 years, minimum, maximum: 18, 66 years, respectively*
- *59% completed high school/vocational; 21% did not complete high school; 19% completed bachelor or higher*
- *76% employed full-time or part-time; 24% not employed (unemployed, not able-bodied, retired, student,*

housewife, parental leave)

- 76% no history of incarceration; 24% history of incarceration
- 81% no drug use last 30 days excluding cannabis and opioid substitution therapy (OST) (injecting or/and non-injecting); 19% drug use last 30 days excluding cannabis and OST (injecting or/and non-injecting)
- 57% depression symptoms (Center for Epidemiologic Studies Depression Scale [CES-D] ≥ 16 points); 43% no clinical significance
- 97% had tested HIV positive between 0-6 months prior to study entry, 1% 7-12 months, 2% ≥ 13 months

Assignment Method

Participants (N = 274) were randomized 1:1 using a block size of four from sealed envelopes to the MARTAS Intervention (n = 135) or a Standard of Care (SOC) comparison (n = 139).

Comparison

Participants assigned to the SOC arm received referrals to a network of government AIDS Centers or their departments located in each study region. The SOC arm did not include case management with a linkage coordinator.

Relevant Outcomes Measured

- Linkage to HIV care within the 3-month period after study enrollment was measured by self-report and confirmed by the medical record at the 3-month follow-up.
- Retention in HIV care was defined as at least one additional HIV clinic visit within 6 months after linkage to HIV care at the 6-month follow-up.
- Time to linkage to HIV care for drug users and non-drug users was measured in days from baseline at 3- and 6-month follow-up periods.

Participant Retention

- Overall Study Sample:
 - 92% of intervention participants retained at 3 months
 - 90% of intervention participants retained at 6 months
 - 89% of comparison participants retained at 3 months
 - 86% of comparison participants retained at 6 months
- Participant retention is not a criterion for the Linkage to, Retention in, and Re-engagement in HIV Care chapter.

Significant Findings on Relevant Outcomes

- A significantly greater percentage of MARTAS participants were linked to HIV care than comparison participants at 3-months post-intervention:
 - Self-report and medical record confirmed linkage to HIV care: 84.4% vs. 33.8%; adjusted RR = 2.45, 95% CI: 1.72 – 3.47; $p < 0.001$
 - Medical record confirmed linkage to HIV care: 87.4% vs. 38.1%; adjusted RR = 2.25, 95% CI: 1.61 – 3.14; $p < 0.001$
- A significantly greater percentage of MARTAS participants were retained in HIV care than comparison participants at 6-months post-intervention (64.4% vs. 32.4%; crude RR = 1.99, 95% CI: 1.52 – 2.61; $p < 0.001$)
- Among all study participants, time to linkage to HIV care was significantly shorter among MARTAS participants than comparison participants (log rank = 72.6, $p < 0.001$).

- Among active drug using participants (drug use during last 30 days), time to linkage to HIV care was significantly shorter among MARTAS participants than comparison participants (log rank = 43.3, $p < 0.001$).
- Among participants who did not report drug use in the past month, time to linkage to HIV care was significantly shorter among MARTAS participants than comparison participants (log rank = 40.2, $p < 0.001$).

Note: Risk ratios adjusted for multiple baseline characteristics such as sex and education.

Considerations

This study is a modification of [ARTAS](#).

Additional significant positive findings on non-relevant outcomes

- None reported

Non-significant findings on relevant outcomes

- None reported

Negative findings

- None reported

Other related findings

- None reported

Implementation research-related findings

- None reported

Process/study execution findings

- An intervention manual was adapted for use in this context by study investigators. MARTAS case managers, medical chart reviewers, supervisors, and recruiters/interviewers received a 5-day training. Two case managers were trained per each participating recruitment site (clinic) to address potential staff turnover. The research team conducted weekly conference calls and monthly monitoring visits to study sites during the first 3 months and then every 3 months during the data collection period.
- Among MARTAS participants, 98.5% received at least one MARTAS session.
- MARTAS participants received an average of 3.2 sessions (SD 1.) including face-to-face 2.8 (SD 0.8) and phone sessions 0.3 (SD 0.5) sessions.
- Over half (50.8%) of MARTAS sessions were conducted at study sites; 36.2% were conducted at clinics including AIDS Centers and their regional departments).
- On average, clients received 2.3 (SD 1.2) referrals to HIV services and 0.75 (SD 0.7) referrals to other services.

Adverse events

- There were 22 deaths that occurred over the course of the study period, but none were related to the study.

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REFERENCES AND CONTACT INFORMATION

Neduzhko, O., Postnov, O., Sereda, Y., Kulchynska, R., Bingham, T., Myers, J. J., Flanigan, T., & Kiriazova, T. (2020). [Modified Antiretroviral Treatment Access Study \(MARTAS\): A randomized controlled trial of the efficacy of a linkage-to-care intervention among HIV-positive patients in Ukraine](#). *AIDS and Behavior*, 24, 3142-3154.

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