OPT-IN for LIFE

Evidence-Informed for Retention in HIV Care
Evidence-Informed Structural Intervention

INTERVENTION DESCRIPTION

Goal of Intervention
- Improve retention in HIV care
- Improve viral suppression

Intended Population
- Young adults with HIV

Brief Description

OPT-In for Life is a mobile health app designed to improve retention in care and viral suppression among young adults with HIV. The *OPT-In for Life* app allows participants to manage their own care by directly providing appointment or medication reminders, virtual health visits, help with managing health goals, a two-way secure messaging function, HIV-related laboratory results and general HIV information. The app allows patients to view their health records of HIV viral load and CD4 counts of the past three years. Care team members send general messages or tailored messages to patients to engage them in care. Through the app, the patients can set up their own health goals, and health care team members can review and discuss the goals during clinical encounters to meet patient health needs beyond the scope of HIV care. Lastly, the app offers telehealth capability for HIV care team members to schedule a secure video conference with patients at a convenient time to provide certain aspects of HIV primary care.

Theoretical Basis
- Health Belief Model
- Stage of Change Model

Intervention Duration
- 18 months

Intervention Settings
- Smartphone
- Computer (tablets, laptops, and desktops)

Deliverer
- OPT-In for Life app
- HIV clinical care team (nurses, physicians, case managers)
- Social media content development team
- Administrative support team

Delivery Methods
- Appointment reminders
- Education
- Goal setting/plan
- Mobile app
- Videos

Structural Components

- Access – HIV medical care
  - Improved access to HIV medical care and retention in care for persons who are newly diagnosed with HIV and/or had gaps in HIV care through the OPT-In for Life app
- Capacity Building – Technology
  - Development of the OPT-In for Life App provided appointment or medication reminders, virtual health visits, managing health goals, a two-way secure messaging function, HIV-related laboratory results and general HIV information

INTERVENTION PACKAGE INFORMATION

An intervention package is not available at this time. Please contact **Ping Du,** Department of Medicine, Division of Infectious Diseases and Epidemiology, Pennsylvania State University College of Medicine, 90 Hope Drive, Hershey, PA 17033.

Email: pingdu@pennstatehealth.psu.edu for details on intervention materials.

EVALUATION STUDY AND RESULTS

Study Location Information

The original evaluation was conducted in Harrisburg, Pennsylvania between 2017 and 2019.

Key Intervention Effects

- Improved retention in HIV care
- Improved viral suppression

Recruitment Settings

Clinics

Eligibility Criteria

Young adults with HIV in the age-group of 18 to 34 years who were newly diagnosed with HIV within the past 12 months, had a 6-month or greater gap in HIV care (measured by seeing an HIV medical provider or completing a CD4 and/or HIV viral load test) within the past 24 months, or had a detectable HIV viral load (>200 copies/ml).

Study Sample

The baseline study sample of 92 study participants is characterized by the following:

- *53% White, 43% Black or African American, 16% Hispanic, Latino or Latina, 3% other races*
- *73% male, 25% female, 2% transgender*
- *10% 18-21 years old, 28% 22-25 years old, 33% 26-29 years old, 29% 30-34 years old*
- *24% newly diagnosed*
- *59% loss to follow-up in care*
- *30% HIV RNA viral load >200 copies/ml at last laboratory test*
  - *64% ≤200 copies/ml at enrollment*
  - *36% >200 copies/ml at enrollment*

Assignment Method
None reported

Comparison
The study was a one-group pre-post intervention cohort study. The cohort study participants' pre-intervention (baseline) measurements were compared to their post-initiation measurements at 6, 12, and 18 months follow-up.

Relevant Outcomes Measured
- Retention in HIV care was defined as having at least one HIV medical care visit in each 6-month period during the 18-month intervention period, with a minimum of 60 days between visits.
- HIV viral suppression was defined as having an HIV RNA viral load < 200 copies/ml.

Participant Retention
- Overall study sample
  - 91% retained at 6 months
  - 91% retained at 12 months
  - 86% retained at 18 months

Participant retention is not a criterion for the Linkage to, Retention, and Re-engagement (LRC) in HIV Care chapter. The PRS project does not evaluate that information.

Significant Findings on Relevant Outcomes
- A significantly greater percentage of participants were retained in care in the post-intervention period at 6 months compared to baseline (78.6% vs. 41.3%, respectively; $p < 0.0001$)
- A significantly greater percentage of participants were retained in care in the post-intervention period at 12 months compared to baseline (79.8% vs. 41.3%, respectively; $p < 0.0001$)
- A significantly greater percentage of participants were retained in care in the post-intervention period at 18 months compared to baseline (73.4%, vs. 41.3%, respectively; $p < 0.0001$)
- A significantly greater proportion of participants achieved viral suppression in the post-intervention period at 6 months compared to baseline (86.4% vs. 64.1%, respectively; $p = 0.002$)
- A significantly greater proportion of participants achieved viral suppression in the post-intervention period at 12 months compared to baseline (83.6% vs. 64.1%, respectively; $p = 0.007$)
- A significantly greater proportion of participants achieved viral suppression in the post-intervention period at 18 months compared to baseline (91.4 % vs. 64.1%, respectively; $p = 0.0002$)

Strengths
- Two of the follow-up time points for retention in HIV care occurred at 12 and 18 months.
- There is at least 10% increase in the percentage of persons who are virally suppressed from baseline to 6, 12, and 18 months.

Considerations
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
- This intervention is also determined to be evidence-based for the Structural Intervention (SI) chapter.

Implementation research-related findings
- None reported

Process/study execution findings
- Using an intervention mapping model in HIV research, the research team collaborated to (1) identify leadership, key stakeholders, and staff responsibilities in the intervention; (2) define study outcomes and program performance measures; (3) delineate action plans for initiating, implementing, and monitoring this mobile app–based intervention; and (4) outline the study protocol (study population, recruitment process, IRB applications, the Health Insurance Portability and Accountability Act [HIPAA] requirements, and cybersecurity issues).
- Created a community advisory board that included young adults with HIV from all collaborating sites and conducted 90-minute focus groups.
- To ensure HIPAA compliance and cyber security, the research team collaborated with a mobile app developer in designing health apps that meet HIPAA confidentiality and privacy requirements. The "Opt-In for Life" was able to be used at multiple sites. Patients who received medical care at one site but case management at another site could be registered to both sites on the app. Those two sites then used internal workflows to determine who would respond to the patients.

Adverse events
- None reported

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REFERENCES AND CONTACT INFORMATION

Zurlo, J., Du, P., Haynos, A., Collins, V., Eshak, T., & Whitener, C. (2020). OPT-In for Life: A mobile technology-based intervention to improve HIV care continuum for young adults living with HIV. *Health Promotion Practice, 21*(5), 727–737.

Researcher: **Ping Du, MD, PhD**
Department of Medicine
Division of Infectious Diseases and Epidemiology
Pennsylvania State University College of Medicine
90 Hope Drive
Hershey, PA 17033

Email: **pingdu@pennstatehealth.psu.edu**