



Changing ART Adherence using Theory-Based, Computer-Delivered Interventions

(FUNDED BY NIMH - R01# MH066684-02)



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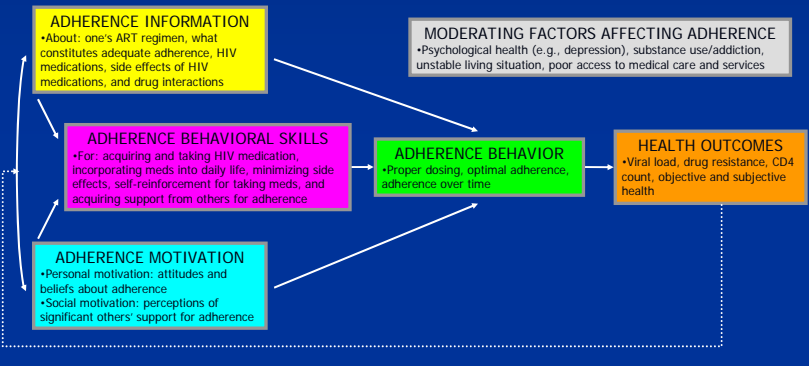
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Introduction

- PLWHA who are sub-optimally adherent to antiretroviral therapy (ART) do not fully benefit from ART and run the risk of developing drug-resistant HIV, which can lead to serious consequences for PLWHA and for public health.
- Although interventions have been developed to increase ART adherence, they have generally not been designed to be implemented with limited resources on a wide scale level, and few have been based on theories of behavior change.
- Using Fisher et al.'s (in press) Information-Motivation-Behavioral Skills (IMB) Model of Adherence as a framework, we first identified a set of ART adherence-specific IMB deficits through qualitative and quantitative research with PLWHA and HIV care providers. Based on these findings, "LifeWindows," an interactive and engaging stand-alone software program was created to help PLWHA achieve and maintain adequate ART adherence.

The Information-Motivation-Behavioral Skills Model



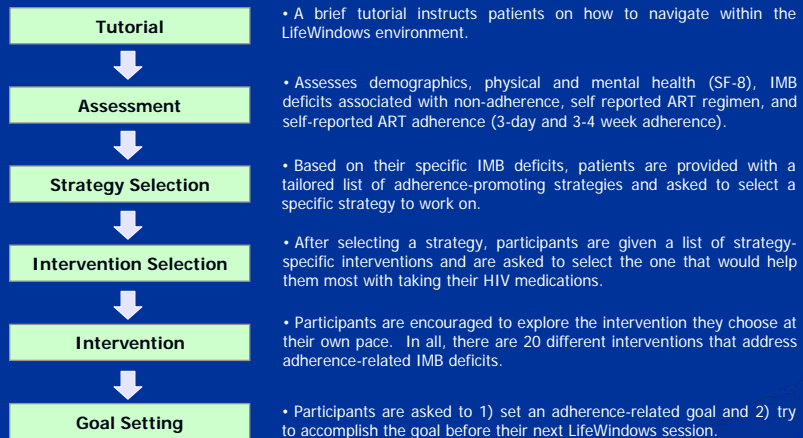
LifeWindows



General Program Information

- LifeWindows is a highly **personalized**, **interactive**, and **engaging** software program.
- The program assesses each participant's specific IMB barriers to adherence and then provides them with a **tailored** list of strategies and interventions to work on.
- LifeWindows sessions take approximately one hour to complete.
- Participants interact with LifeWindows at each clinic visit, prior to their medical appointment, on an ongoing basis.

Program Flow



Interventions



Journey through the Bloodstream

- Animated sequence uses simple representations to explain T-Cells, CD-4 count, HIV, viral load, how HIV meds help fight HIV in the body, and resistance.



My Meds

- Comprehensive resource that provides information about HIV medications.
- Discusses typical dosages, side effects, drug interactions, and dietary restrictions for each medication.



Side Effects Solutions

- Presents detailed information regarding side effects associated with HIV medications.
- Provides patients with tips and strategies for managing their side effects.



Lipodystrophy

- Intervention includes unscripted video-taped accounts of personal experiences with lipodystrophy.
- Also discusses possible causes of Lipodystrophy and treatment options.



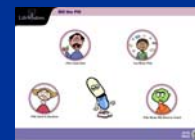
Focus on the Fight

- Involves an activity that helps patients visualize the therapeutic effects of HIV medications.
- Helps promote positive attitudes toward one's HIV treatment.



Positive Voices

- Video-based intervention in which patients can ask other PLWHA about their experiences with HIV and HIV meds.
- PLWHA provide a variety of strategies for overcoming barriers to adherence.



Bill the Pill

- An animated character presents strategies for taking pills that are hard to swallow or taste bad; for taking large numbers of pills; and for taking meds that make one feel nauseous.



Felicia the Pharmacist

- Patients are able to ask Felicia questions about their HIV prescriptions.
- Felicia also provides tips for communicating effectively with one's pharmacist.



Match-Up

- Patients select daily activities that can serve as reminder cues for taking meds.
- Patients create and print a personalized calendar on which dose times are matched-up with recurring activities.



Information Station

- Describes support services available to patients. Information about counseling and support groups for PLWHA, mental health, substance abuse, and housing assistance is provided.



Med Minders

- Provides information about devices that can help patients take their medications on time, every time.
- Categories include "Organize," "Alarm," "Hide," and "Carry."



Doc Talk

- Video-based intervention in which patients can ask HIV doctors about a number of HIV-related issues, including HIV treatment, side effects of HIV medications, and resistance.



Helping Hand

- By playing the role of an adherence counselor and helping other PLWHA overcome their barriers to adherence, patients learn strategies for dealing with their own adherence-related issues.



The Misadventures of Skip Sisdose

- Uses humorous animation to provide tips for fitting meds into one's daily life, taking meds when one's routine changes, and taking meds when others are around.



Patient-Provider Communication

- Addresses communication skills, with a focus on the doctor-patient relationship.
- Skills are presented in a narrated video of a successful doctor-patient interaction.



HIV, Drugs, and Alcohol

- Discusses the effects of street drugs and alcohol on the body: street drug and alcohol interactions with HIV meds; and tips for staying healthy and taking meds, even when using drugs and/or alcohol.



Stress Management

- Patients learn about the nature of stress, particularly as it relates to living with a chronic illness and ART adherence.
- A variety of stress-reduction activities and strategies are provided.



Battle for Health

- A video game in which patients fight off infections, take HIV meds at specific times to fight HIV, and use tools such as pillboxes and alarms to ensure that meds are taken, even in challenging situations.



Learning from a Missed Dose

- Patients are taught to assess the circumstances surrounding a missed dose and learn to identify, understand, and overcome their barriers to adherence.



Celebrate Success

- Offered to patients with perfect adherence (across all measures).
- Patients create a personalized reward certificate and then learn about maintaining adherence over time.

Conclusions

- Previous pilot testing of LifeWindows with PLWHA has provided support for the Information-Motivation-Behavioral Skills Model (Fisher et al., in press) as it relates to ART adherence. Additionally, PLWHA who have interacted with LifeWindows have found it to be highly informative, educational, and entertaining.
- The efficacy of using LifeWindows to increase ART adherence is currently being assessed through a randomized controlled trial at five HIV care centers in Connecticut. Final outcome data will be available 2007-2008.
- By assessing PLWHA's specific ART adherence-related IMB deficits, and by providing individuals with tailored computer-based interventions, it is anticipated that LifeWindows will be effective at increasing and maintaining ART adherence in an efficient and cost-effective manner.