

A theory-based health literacy intervention for HIV-related medication adherence.

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Medication adherence in HIV

- Adherence needed to suppress viral replication = 80-95%
- Typical adherence = 60-70%
- Viral suppression → decreased risk of infecting others
- Viral suppression → better clinical outcomes



Health literacy

- Knowledge, abilities, and skills required to attain a desired state of health
- Related to multiple clinical variables
 - Disease control (diabetes)
 - Hospitalization (Medicare data)
 - Death (Medicare data)
 - Medication adherence (HIV)



- Information: How meds work, how to cope with side effects
- Motivation: Social support, depression
- **B**ehavioral Skills: How to remember to take medications, cope with obstacles



Tailored information

- Personalization
- Individualized feedback
- Enhancing perceived relevance
- Increases impact on patient behavior
 - \rightarrow 10%+ increase in dietary intake of fruits
 - \rightarrow 10-15% improvement in adherence in older adults treated for memory problems



The intervention





- An animation emphasizes specific stages in the viral life cycle
- These stages are later reviewed in discussion of how medications work





- A key aspect of the intervention is interactivity
- Participant learning is assessed with questions
- If needed, content is retaught







The key to staying well if you have HIV is to get the treatment you need.

The doctor can tell you what medicines you need by finding out two things:

(1) The doctor needs to know how many CD4 or T cells you have.

(2) He or she needs to know how much virus is in your blood.

You need a blood test to find out these things.

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MEMS

- Medication Event
 Monitoring System
- Adherence indices
 - Taken (e.g., 30 pills in 30 days)
 - Correct (e.g., I pill/24 hours)
 - Scheduled (e.g.,+/- 2 hours)





Results: LifeWindows IMB scale

Information

- F = 7.141, p = 0.001
- f = 0.35, a medium to large effect size
- Motivation
 - F = 0.75, p = 0.48
- Behavioral Skills
 - F = 5.17, p = 0.007
 - f = 0.29, a medium effect
- Based on completers
 - 3 drop outs





Results: Self Efficacy, Depression

- Patient-Provider Interaction
 - F = 5.17, p = 0.007; f = 0.29, medium effect

Healthcare Self-efficacy

 F = 11.71, p = 0.001; f = 0.39, medium to large effect

Depression and Social Support

Not significant



Results: Adherence

Percent Taken

- Number of doses / month
- F = 4.21, p = 0.04; f = 0.25, a medium effect

Percent Correct

- Number of doses / day
- F = 5.3 I, p = 0.02; f = 0.27, a medium effect

Conclusions

- Participation in the intervention is associated with improved
 - Information
 - Behavioral skills
 - Self-reported ability to work with clinicians
 - Healthcare self-efficacy

Not associated with improved

- Motivation
- Social support
- Mood

Collaborators

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- Rosemary Davenport, RN, MSN, ARNP
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