

A Web-based HIV/STI Prevention Curriculum for Deaf High School Students

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Background

- Deaf adolescents, a vulnerable group
- American Sign Language (ASL)
- Deaf as a culture
- Majority of deaf born to hearing families
- No HIV/STI prevention programs for deaf

Deaf Adolescents' HIV Prevention Needs

Low HIV knowledge & high risk behavior

- Reasons for low knowledge:
 - Low fund of general health knowledge
 - Low reading levels
 - Lack of access to oral information (media and family)
 - Little information received in school*

*(Goldstein, Eckhardt, Creamer, Berry, & Cleland, 2010)

Phase I SBIR Feasibility Study

Specific Aim 1

- Develop computer-based prototype of an HIV/STI Prevention Curriculum in American Sign Language
- Adapt from an evidence-based HIV/STI prevention intervention
- Meet cultural, linguistic, and learning needs of deaf high school students

Specific Aim 2

- Examine feasibility & acceptability of computer-based HIV curriculum in ASL
- Field test curriculum in high schools for the deaf
- Assess preliminary effectiveness via pre and post tests & qualitative assessment

General Approach

1. Culturally & linguistically appropriate for deaf youth
2. Content delivery through blended learning (combination of web-based & teacher facilitated delivery)

Methods

Using **ADAPT-ITT*** procedure:

1. Assess of population characteristics
2. Choose the evidence based intervention
3. Obtain stakeholder input through 'theatre testing'
4. Produce of 'Draft One' (Prototype) of the intervention

*Wingood & Diclemente, 2008)

Phases of ADAPT-ITT

1. Assess population characteristics

- ASL survey of over 700 deaf high school students in 5 US regions *
- Low HIV knowledge compared to hearing samples
- Some high risk behaviors, others typical for adolescent samples

*(Goldstein, Eckhardt, Creamer, Berry, & Cleland, 2010)

Phases of ADAPT-IT

2. Choosing the EBI to be adapted

Focus on Youth (B. Stanton)

- Biological evidence of effectiveness
- Previous adaptations to diverse cultures/languages
- Successful adaptation to schools
- Long term follow up

Phases of ADAPT-ITT

3. Content Selection and Translation

Select sections for computer delivery & teacher facilitation

1. The Family Tree (computer graphic + discussion)
2. Build skills: Communication Styles; Sex a decision for two (computer vignette + discussion)
3. SODA (Stop-Options-Decisions-Action) (computer vignette + discussion)
4. HIV facts (computer graphic + discussion)

Phases of ADAPT-ITT

4. Theatre Testing - a Qualitative Method

All Stakeholders in the same room

- Intervention delivered in real time classrooms
- Immediate student feedback
- Post-class feedback from teachers & administrators.

(Audio recorded and transcribed)

Findings from Theatre Testing:

- FOY gives little detail about story characters. Example: This is Emily, please tell me about her friends.
- English speakers 'fill in the details'. Deaf signers expect more information.
- ASL & English are different languages with different story telling patterns.

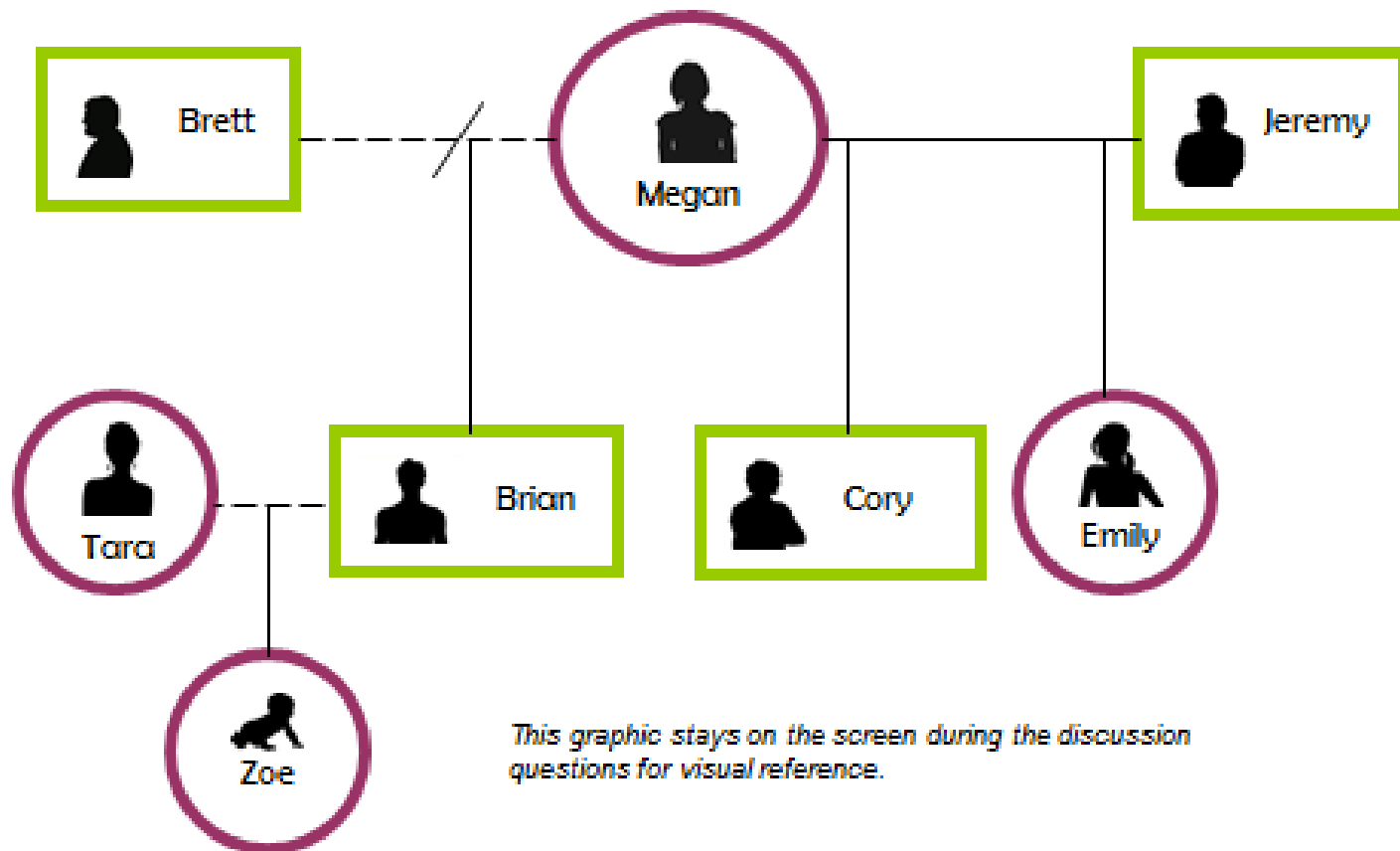
Adaptation: The Family Tree

Objective: Students learn to link own behavior to their families' values.

- Majority of deaf adolescents are the only deaf family member.
- Often there is no sign language at home.
- Our characters are deaf teens who miss much family discussion.
- We provide more details about characters than original FOY.

Prototype: Family Tree

Family Tree



Adaptation: Role Play

Communication Styles: A role play exercise to illustrate passive, assertive, & aggressive communication.

In our scenario a deaf student returns a shirt with a hole to the school store:

- Dialogue in ASL
- All characters are deaf.
- Students see the different communication styles in their own social setting.

Prototype: Communication Style

Communication Styles



You finished seeing the role playing and discussing the questions, now I'd like to discuss more in-depth about the three communication styles that you saw.

The first one is nonassertive (passive). The way a person communicates when they are being nonassertive or passive is often quiet. They might just say a few words or talk just a little bit. They look very weak and don't stand tall and they are passive. Inside they do not feel confident and they might feel shy or nervous. Other people might look at them and feel awkward, confused or unclear. The information that person gives is often unclear and they try to avoid discussions and conflict.

Prototype: HIV Facts

HIV/AIDS Facts Sheet adaptation

- Added visuals
- Bullet points
- Simplified text

HIV/AIDS Facts

What is HIV? What is AIDS?

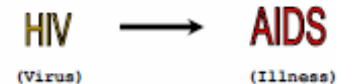
HIV stands for **Human Immunodeficiency Virus**.

AIDS stands for **Acquired Immune Deficiency Syndrome**.

What's the difference?

HIV is the virus that can damage the immune system. It reduces the body's level of T-cells (special fighter cells that fight disease in the blood).

A person with HIV gets diagnosed with **AIDS** when their T-cells are below 200. This person's immune system is badly damaged and will have trouble fighting diseases.



How do you get HIV?

HIV lives in blood, semen, vaginal fluids and breast milk. To get HIV, one of these infected fluids has to get inside your body.

Ways you can get HIV:

- **Sex.** You can get HIV by having sex without a condom with a person who has HIV. This includes vaginal, anal or oral sex.
- **Needles.** You can get HIV by sharing drug needles with a person who has HIV. You can also get HIV by sharing needles for tattoos, piercing, injecting steroids or vitamins.
- **Being born with it.** Some babies can be born with HIV if the mother has HIV. A baby can also get HIV from breast milk, if the mother has HIV.

How you don't get HIV.

You don't get HIV from:

- Touching, hugging, kissing on the lips or hanging out with a person who has HIV
- Drinking glasses or toilet seats. HIV is **not** passed through saliva or urine.
- Donating blood.
- Mosquitoes or any insects.

How can you tell if someone has HIV?

You can't tell if a person has HIV by looking at him or her. Most people with HIV look healthy, act healthy and feel healthy. Many people who have HIV don't even know they have the virus.

Results of Pre & Post tests

Adapted written HIV Fact Sheet was presented, discussion was in ASL.

A 15 item HIV Facts pre and post test was given.

Results showed the average score rose from 9.3 at pretest to 13.2 at posttest (Paired t-tests $p < .001$, $N = 16$), indicating increase in HIV knowledge.

Conclusions

- Adaptation needs to be both linguistic & cultural.
- Core elements & exercises of FOY need to be retained.
- Theatre testing is an effective method of efficiently gathering qualitative data from deaf youth, their teachers, & administrators.
- Deaf students respond to active learning techniques when adapted for deaf culture & language.
- Deaf students can learn vital facts about HIV.

Conclusions

- Feasibility of adaptation of FOY for deaf was demonstrated.
- For full Deaf *Focus on Youth* the following are needed:
 - Realistic stories/vignettes with deaf actors
 - More details about story characters
 - Blended learning exercises where 'target' is on the web & discussion is in classroom.

Current Status

Recent Phase II grant awarded to complete the full development a web-based, blended-learning HIV/STI curriculum for deaf high school students

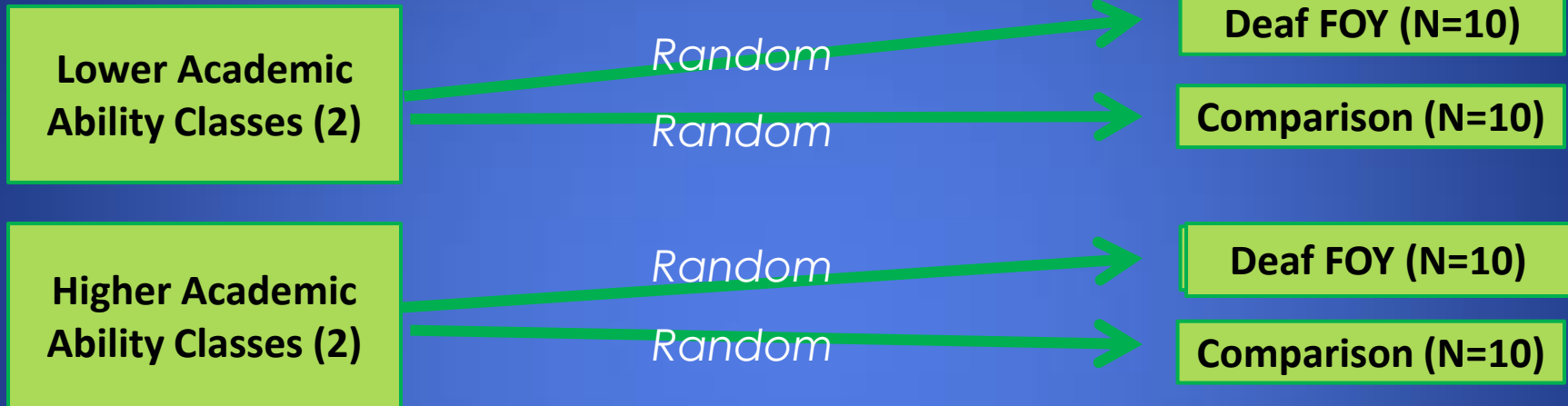
New project will:

- Adapt entire *Focus on Youth* intervention
- Use ADAPT-ITT Model
- Conduct a trial of the Deaf FOY with N=80 deaf high school students

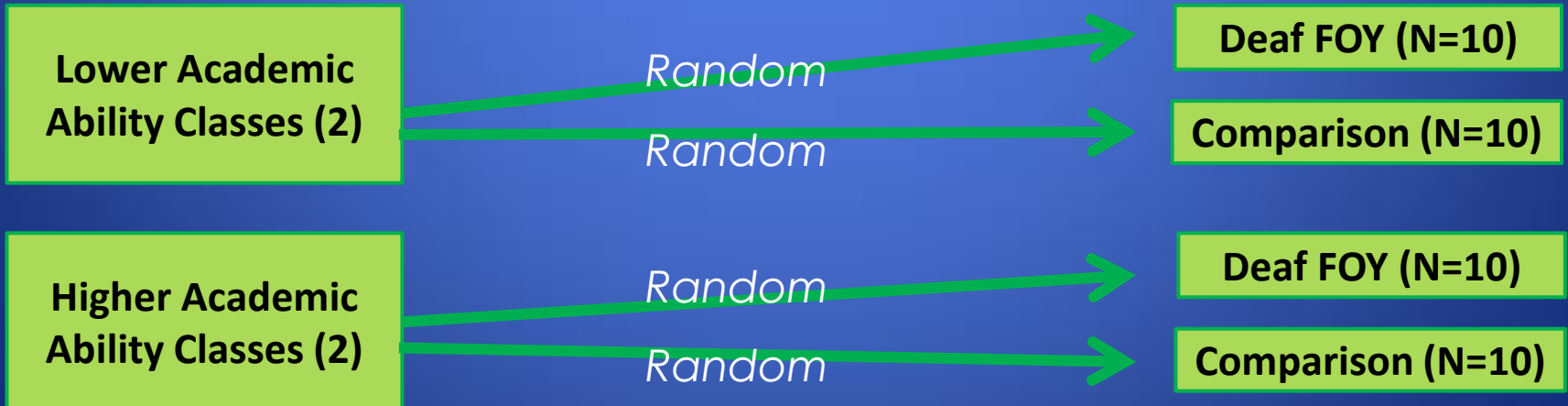
Study Design

(High Schools for the Deaf=2; Health Classes = 8; Students = 80)

School 1



School 2



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