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Predicting Variability in HIV-Related Behavior in Sexually Active Adolescent Girls: A Test of the Information-Motivation-Behavioral Skills Model

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Transforming Healthcare Transforming Lives

About Health Improvement Project for Teens (*HIPTeens*)

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Background

HIV infections in adolescent girls & young women across the globe

- Globally, more than 90% of all adolescent and adult HIV infections are transmitted heterosexually
- In the US, approximately 25% new HIV diagnoses are adolescents & young adults (ages 13–24)
- Females are disproportionately impacted by sexual risk behaviors

There was vital need for female-tailored, theoretically-driven interventions that impacts replicability & translatability

Purpose of *HIPTeens* Study


Identify & test a theoretically-driven* HIV prevention intervention

*Information-Motivation-Behavioral Skills (IMB)


Tailored to specific population: sexually-active, urban adolescent girls, ages 15-19

Developing *HIPTeens*

Identify population's existing level of HIV-prevention IMB



Design population-specific intervention strategies



Methodologically rigorous evaluation research

Participants

Randomized to HIV risk-reduction intervention or structurally equivalent health-promotion control groups

Sexually-active, urban adolescent girls

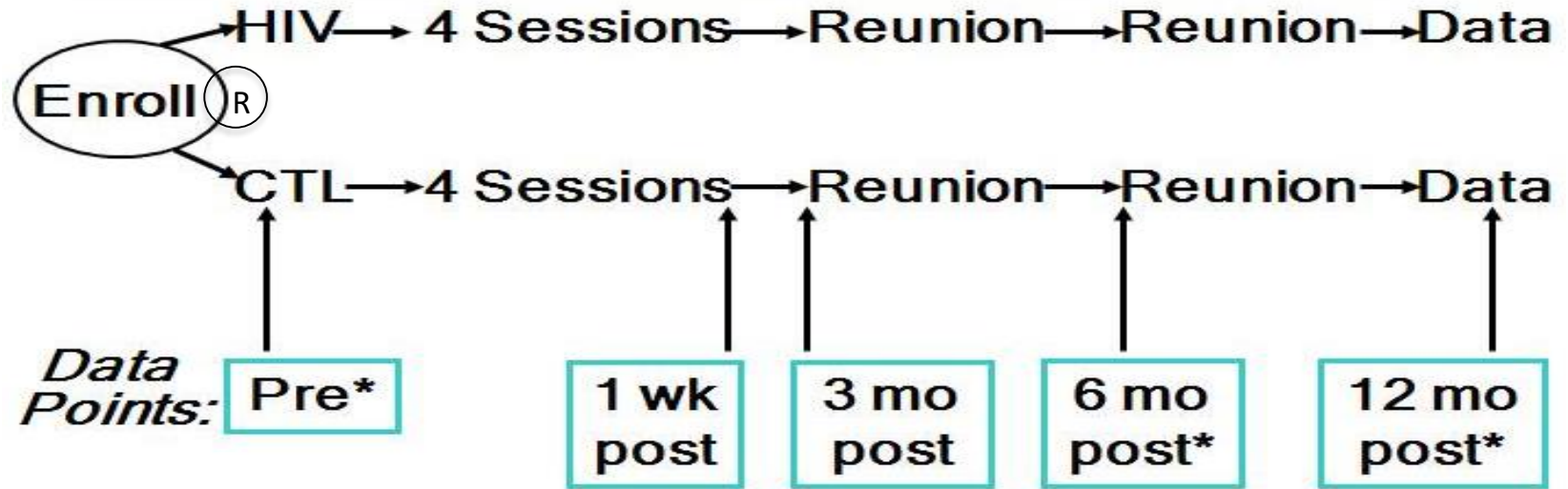
Ages 15-19 (M=16.5)

N=738

African American 69%

Economically Disadvantaged 69%

HIPTeens RCT



* STI Test



Data Collection and Analysis

Data collection: audio computer-assisted self-interviewing (ACASI) through laptop computers at enrollment sites

Analysis: compared responses of girls randomized to the intervention and control groups at 3, 6, and 12 months post-intervention to identify differences between groups

Manualized Intervention

Content

Instructions

Prompts, MET techniques

Supplies

Time frame

Color coded

Statistically Significant Results

Fewer episodes of vaginal sex at all follow-ups

Fewer episodes of unprotected vaginal sex at 3 and 12 month follow-ups

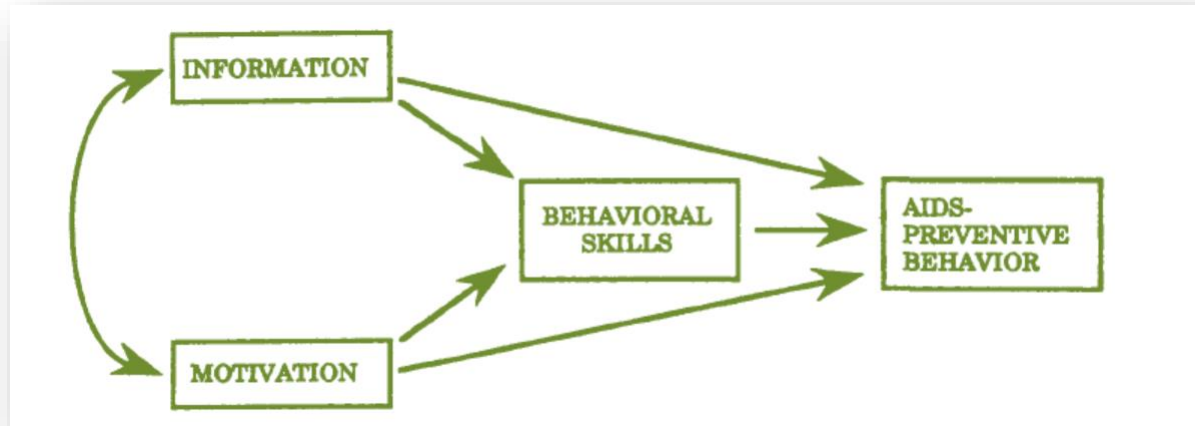
Decrease in total number of partners at 6 month follow-up

Unanticipated Results

Significantly higher rates of abstinence at 3 and 12 month follow-ups

Medical record audits documented 50% reduction in positive pregnancy tests at 12-months

Information-Motivation-Behavioral Skills (IMB) Model of AIDS-Preventive Behavior (Fisher & Fisher, 1992)



Information

Educational materials
concerning HIV infection
and AIDS

Certain aspects of HIV-related
information are especially
important for girls to know, e.g.

Information delivered via games,
flash cards, and videos

Information is necessary but not
sufficient to change behaviors

Motivation

Information can be motivating if personally relevant

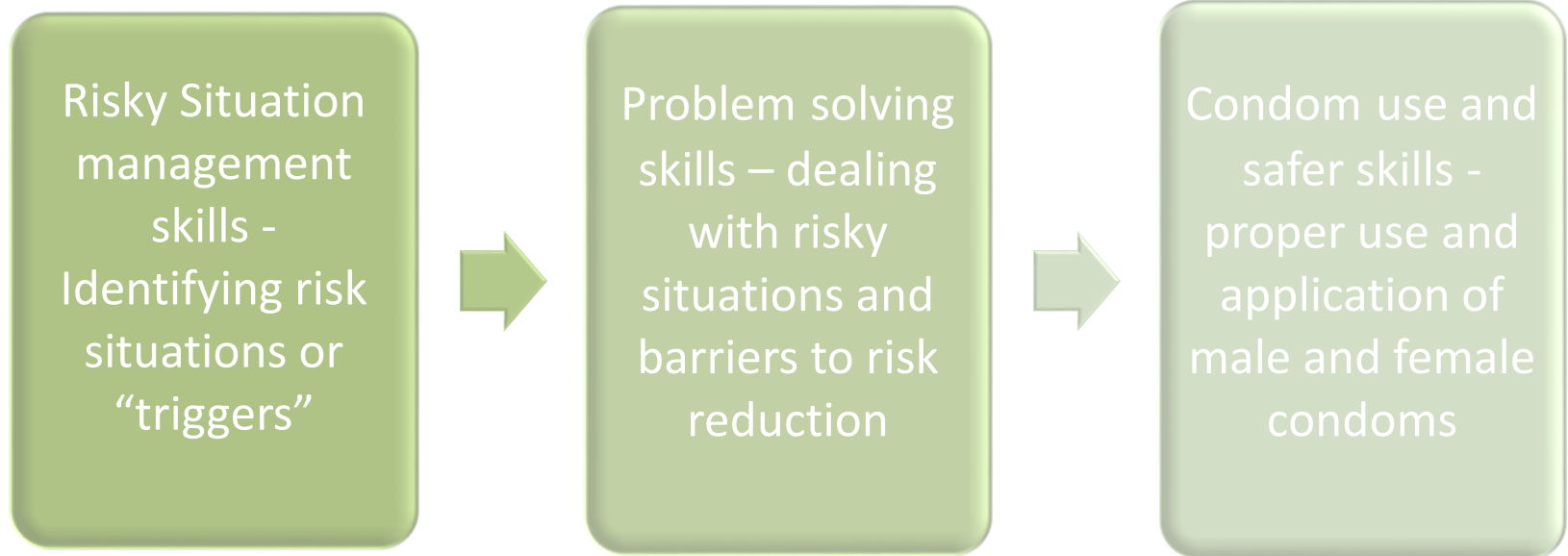
Local epidemiological data:
risk opportunity

Videotape presentation of people living with HIV matched to the gender and ethnicity of the group can heighten awareness.

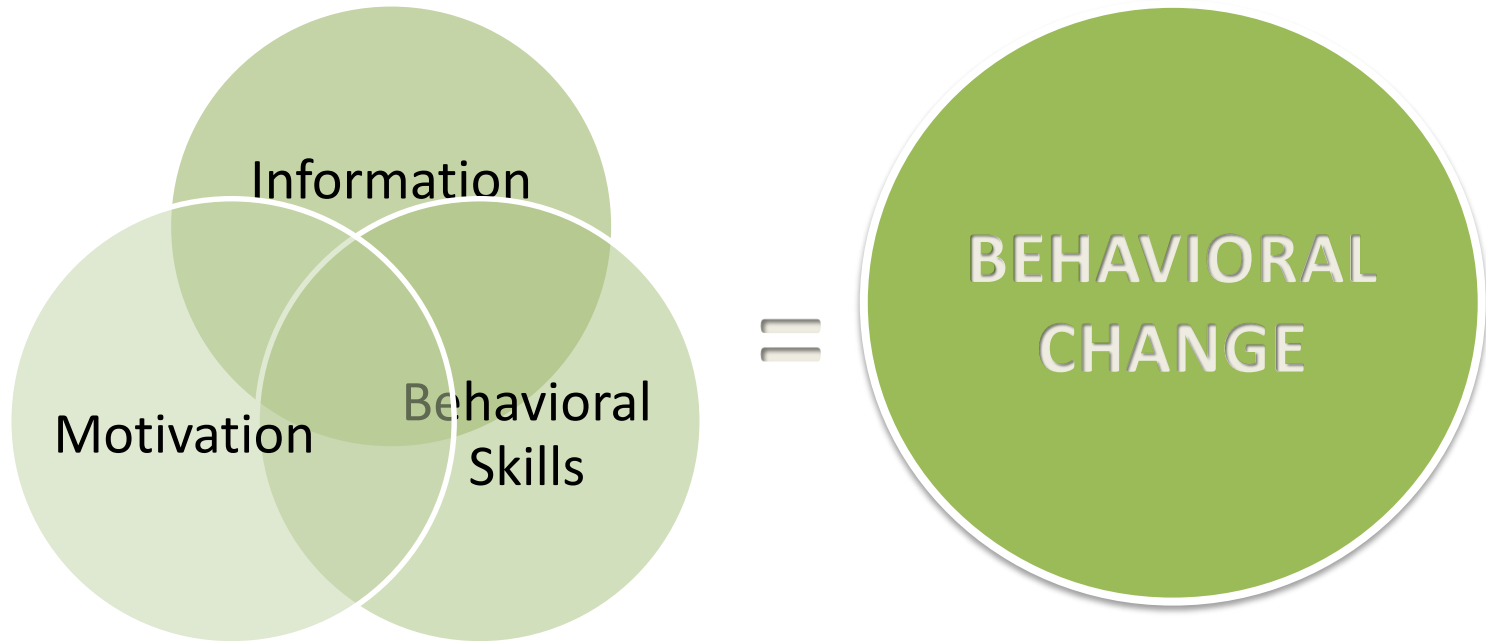
Motivational exercises are tailored to girls' unique motives: e.g., compromising their fertility.

Behavioral Skills

HIV prevention behavioral skills are actions that can be performed to reduce HIV risks and includes three steps:



IMB Model Posits ...



Cross-Lagged Longitudinal Model

Information
(*Knowledge Regarding HIV*)
measured:

1- week post intervention

3 months post intervention

6 months post intervention

Motivation (*Negative Attitudes towards Condom Use*) measured:

1- week post intervention

3 months post intervention

6 months post intervention

Behavioral Skills (*Sexual Assertiveness; Self Efficacy Regarding Condom Use – Main Partner; Self-Efficacy Regarding Condom Use – New Partner, Condom Influence Strategies**) measured:

1- week post intervention

3 months post intervention*

6 months post intervention*

Outcome Variable

- Dependent Outcome Variable
 - Sex Without a Condom
 - Measured at 12-months post intervention

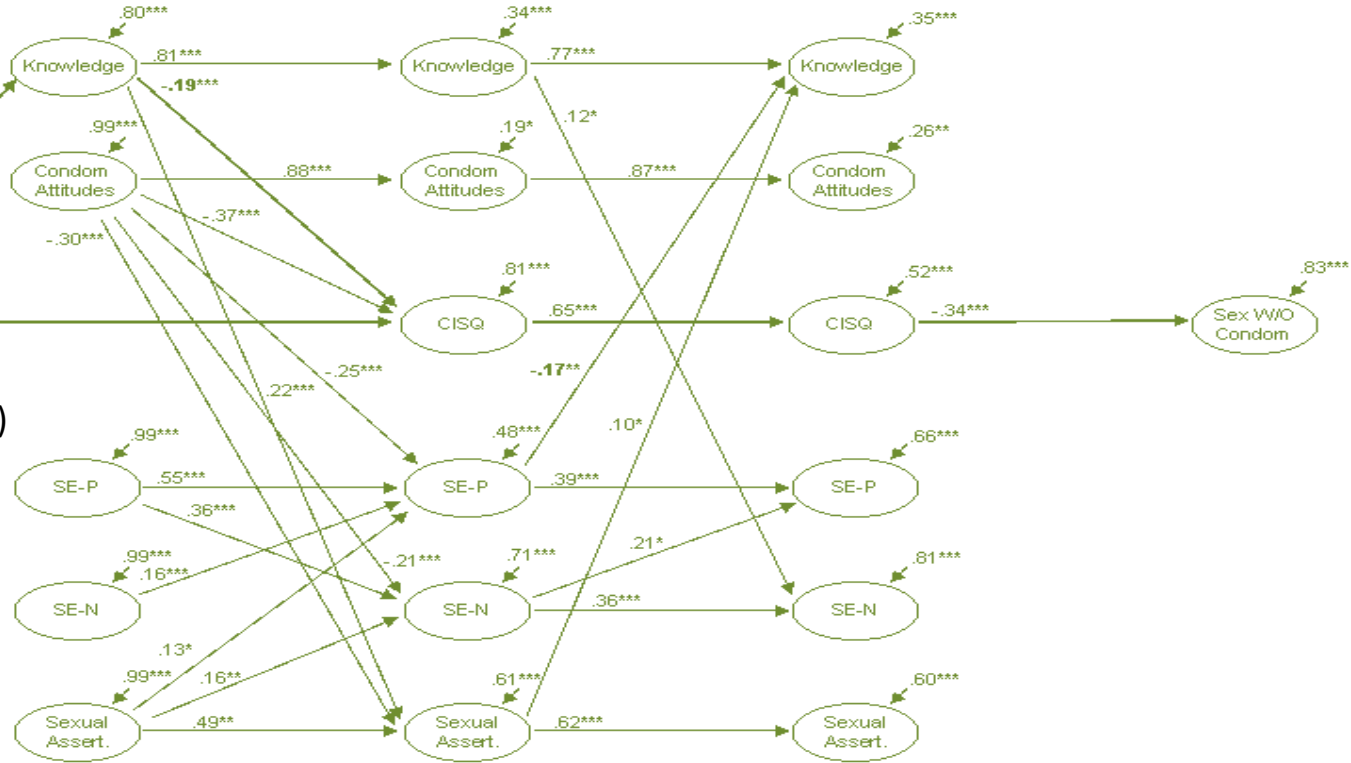
Results

Standardized coefficients & goodness-of-fit indices indicate model provides satisfactory fit to the data

- (χ^2 (1518 df) = 2841.72; $p = < .001$; CFI = .903; RMSEA = .037; 90% CI = .035 - .039)

Structural Results

HIPTEENS intervention behavioral outcomes effects decreased sex without condom, via increased knowledge & increased skills (condom influence strategies)



Summary



Gender-tailored HIV intervention designed to reduce sexual risk in adolescent girls

Information-Motivation-Behavioral Skills (IMB) model shown to be a satisfactory fit for the HIPTEENS intervention

National Recognition of *HIPTeens*

CDC

- Has been identified by the CDC as meeting *PRS criteria for Good evidence of efficacy*
- Will be disseminated through the CDC

<http://www.cdc.gov/hiv/prevention/research/compendium/rr/complete.html>

HHS

Recognized by U.S. Health and Human Services as meeting intervention effectiveness criteria based on the **Teen Pregnancy Prevention (TPP) Evidence Review**

www.hhs.gov/ash/oah/oah-initiatives/teen_pregnancy/db/programs/hip_teens.pdf