

ALL ABOUT YOUTH:

Using Intervention Mapping to Develop, Implement, and Evaluate Comparable Risk Avoidance and Risk Reduction Sexuality Curricula

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The findings and conclusions in this report are those of the authors
and do not necessarily represent the views of CDC.

Background

- Major legislative initiatives have funded both sexual risk avoidance and risk reduction programs
- The efficacy of both types of programs has been debated
- Need for additional studies to examine the efficacy of both approaches and to identify common elements that are effective

Purpose of Study

- To develop a sexual risk avoidance program and a risk reduction program for **middle school students** that are comparable in duration, delivery, & theory base
- To evaluate the efficacy of these two programs, both relative to standard care, on:
 - Behavioral outcomes
 - Psychosocial variables

Intervention Mapping Process*

Step 1: Needs assessment

Step 2: Specify program objectives

Step 3: Select theory-based methods and practical strategies

Step 4: Develop program products

Step 5: Specify adoption and implementation

Step 6: Specify evaluation plan

* Bartholomew, Parcel, Kok, Gottlieb, 2006

Step 1: Needs Assessment

- Determine key differences and common elements for both programs
 - Literature review
 - Obtain existing sexual risk avoidance and risk reduction programs
 - Expert Advisory Group
- Gather community input on content & implementation
 - School district collaboration
 - Student & parent focus groups
 - Interviews with school personnel

Differences Between Proposed Programs

■ Risk Avoidance

- Directive approach
- Focus on character education
- Focus on beliefs about marriage
- Meets Title V Section 510 A-H criteria

■ Risk Reduction

- Non-directive approach
- Focus on respecting self and others
- Address condom and contraceptive skills

Common Elements of Proposed Programs

- Based on Social Cognitive and Social Influence Models
- Skills training (refusal and communication, decision making, limit setting and goal setting)
- Healthy friendships and dating relationships
- Puberty and reproduction
- Negative consequences of sex
- Testing for HIV, STI, & pregnancy
- Parent-child activities
- Administered by trained facilitators who believe in their respective program

Community Input

- Student Focus Groups (n=64)
 - 55% Latino, 45% Black
 - Depends on person; helpful; know if ready
- Parent Focus Groups (n=24)
 - 50% Latino, 50% Black
 - Most parents supportive
 - "That'd make a good start"
- School Personnel Interviews (n=15)
 - All willing to accept random assignment

Step 2: Behavioral Objectives: Risk Avoidance Program

All students will:

- Develop and demonstrate strong character*
- Have healthy relationships with friends and future girlfriends and boyfriends
- Not have sex before marriage

Students who have had sex will:

- Get tested for HIV, STIs, and pregnancy

* Key character attributes: Respect, responsibility, courage, caring, honesty. Consistent with Character Education -Texas Education Code 29.906 (TX law), and Community of Caring Character Education program.

Behavioral Objectives: Risk Reduction Program

All students will:

- Not have sex
- Have healthy relationships with their friends and future girlfriends and boyfriends

Students who have had sex will:

- Get tested for HIV, STIs, and pregnancy
- Use condoms consistently and correctly when having sex
- Use an effective method of birth control along with condoms when having sex

Partial Matrix of Change Objectives: *Wait until marriage to have sex*

| Performance Objectives | Knowledge | Skills | Attitudes |
|--|---|---|---|
| 1. Make decision to not have sex | State benefits of waiting until marriage to have sex [A,C,E, F] State physical, emotional, social consequences of having sex [C,E,F] | Demonstrate the ability to make decision to not have sex until marriage | State that the benefits of waiting to have sex outweigh the negative consequences (and transitory benefits) of having sex before marriage [A] |
| 2. Avoid risky situations that may lead to sex | Identify signs (feeling pressured, lack of adult supervision, alcohol and drugs) & situations (places, peers, times) that may make it hard to say no to sex [G] | Demonstrate ability to identify signs and situations that may make it hard to say no to sex [G] | Feel positive about avoiding situations that may make it hard to say no to sex [G] |
| 3. Refuse to have sex | Describe characteristics of effective refusal skills [G] | Demonstrate the ability to use refusal skills in multiple situations [G] | Feel positive about refusing to have sex until marriage [G] |

[A-H] Title V Section 510 A-H Criteria

Step 3: Comparable Methods & Strategies



Information transfer



Skills practice



Peer modeling



Real-life serial - modeling

Steps 4 & 5: Program Development & Implementation

- Based on *It's Your Game, Keep It Real*
- 7th & 8th grade
- Primary components
 - Group activities
 - Individual computer activities
- Implemented in schools by trained facilitators

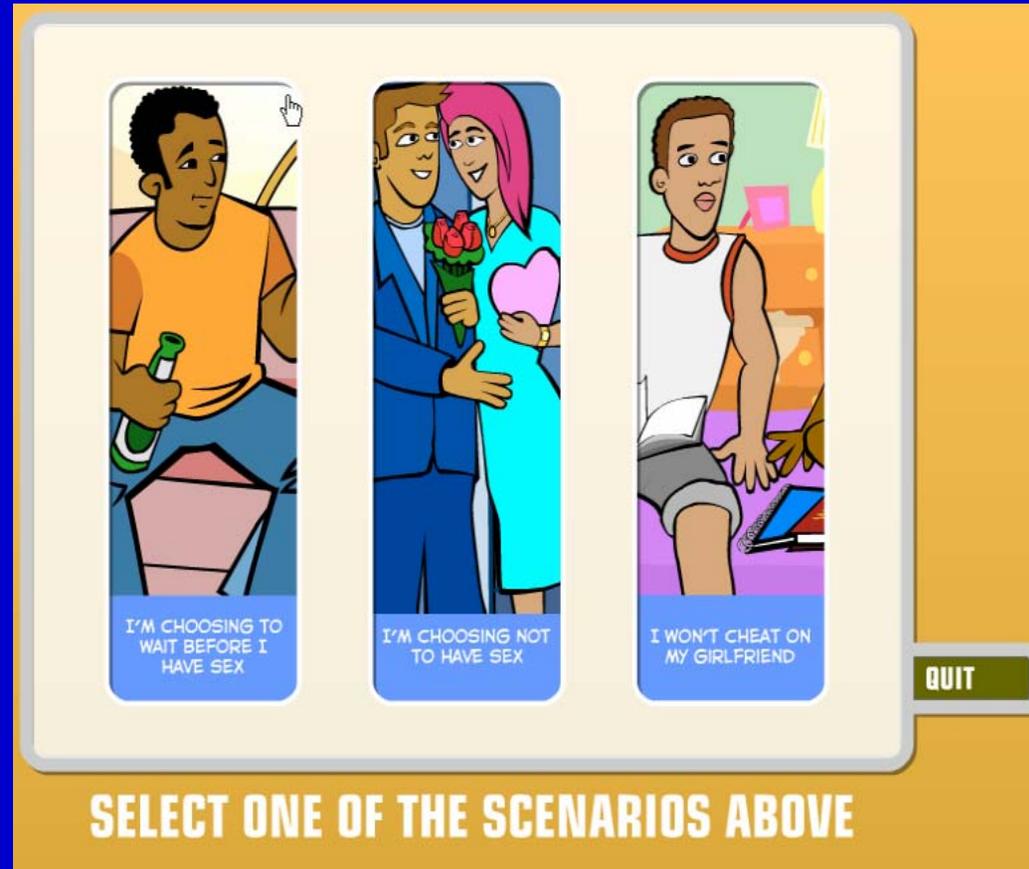


Decision-Making Paradigm

- **Select** your personal rules ahead of time
- **Detect** signs or situations that could challenge your rules (risky situations)
- **Protect** your rules
 - Avoid risky situations ahead of time
 - Refusal skills and alternative actions



Sample Activity: Select, Detect, Protect



The image shows an interactive activity interface. It features three vertical panels, each with a cartoon illustration and a text box below it. The first panel shows a man in an orange shirt holding a green condom, with a mouse cursor pointing at the top right corner. The second panel shows a man in a blue suit holding a bouquet of red flowers and a woman in a blue dress holding a pink heart. The third panel shows a man in a white tank top and grey shorts sitting at a desk with a laptop. To the right of the panels is a green button with the word 'QUIT' in white. Below the panels, the text 'SELECT ONE OF THE SCENARIOS ABOVE' is displayed in white on a blue background.

I'M CHOOSING TO WAIT BEFORE I HAVE SEX

I'M CHOOSING NOT TO HAVE SEX

I WON'T CHEAT ON MY GIRLFRIEND

QUIT

SELECT ONE OF THE SCENARIOS ABOVE

Step 6: Evaluation

- **Randomized controlled trial**
 - 15 middle schools
 - 5-, 18-, 24-month post-tests
 - ACASI
 - Psychosocial outcomes
 - Sexual outcomes
- **Process Evaluation**
 - Fidelity of implementation
 - Exposure to other sexual education programs



Characteristics of Baseline Sample (N = 1,742 7th grade students)

- 59% female, 41% male
- 39% African-American
- 49% Hispanic
- 12% other racial/ethnic group
- Mean age 13.1 years (SD = 0.71)
- 16% sexually experienced (oral, vaginal, or anal)

Psychosocial Results: 7th Grade

| Outcome (Range) | # Items | α | Risk Avoidance | | Risk Reduction | |
|-------------------------------|---------|----------|----------------|-------|----------------|-------|
| | | | Test Stat. | p | Test Stat. | p |
| Sexual beliefs (0-3) | 4 | .78 | 0.171 | 0.000 | 0.101 | 0.004 |
| Abstinence beliefs (0-3) | 6 | .84 | 0.376 | 0.000 | 0.218 | 0.000 |
| STD knowledge (0-1) | 6 | .60 | 0.060 | 0.000 | 0.044 | 0.006 |
| HIV/STI knowledge (0-2/0-1) | 5 | .49 | 0.115 | 0.000 | 0.102 | 0.000 |
| Perc. friends' beliefs (0-3) | 3 | .75 | 0.046 | 0.057 | 0.081 | 0.003 |
| Perc. friends' behavior (0-3) | 4 | .76 | -0.049 | 0.137 | -0.035 | 0.336 |
| Avoid risky situations (0-3) | 7 | .83 | -0.076 | 0.025 | -0.046 | 0.237 |
| Refusal self-efficacy (1-4) | 4 | .87 | 0.025 | 0.539 | -0.035 | 0.42 |
| Marriage beliefs (0-3) | 3 | .48 | 0.101 | 0.002 | 0.559 | 0.101 |

All models adjusted for age, gender, race/ethnicity, and baseline score

Psychosocial Results: 7th Grade

| Outcome (Range) | # Items | α | Risk Avoidance | | Risk Reduction | |
|-------------------------------|---------|----------|----------------|-------|----------------|-------|
| | | | Test Stat. | p | Test Stat. | p |
| <i>Intentions</i> | | | | | | |
| Vaginal sex in next yr. (1-5) | 1 | na | -0.348 | 0.000 | -0.224 | 0.002 |
| Oral sex in next yr. (1-5) | 1 | na | -0.204 | 0.002 | -0.122 | 0.090 |
| Abstain thro HS (1-5) | 1 | na | 0.386 | 0.000 | 0.102 | 0.249 |
| Abstain until marriage (1-5) | 1 | na | 0.602 | 0.000 | 0.263 | 0.003 |
| <i>Condom Use</i> | | | | | | |
| Condom beliefs (0-3) | 3 | .87 | 0.038 | 0.322 | 0.082 | 0.044 |
| Condom know. (0-2/0-1) | 6 | .65 | -0.031 | 0.034 | -0.023 | 0.086 |
| Condom negot. s-e (0-3) | 2 | .75 | -0.048 | 0.158 | -0.002 | 0.953 |
| Condom use s-e (0-3) | 3 | .63 | -0.029 | 0.492 | -0.015 | 0.733 |

All models adjusted for age, gender, race/ethnicity, and baseline score

Psychosocial Results: 7th Grade

| Outcome (Range) | # Items | α | Risk Avoidance | | Risk Reduction | |
|------------------------------|---------|----------|----------------|-------|----------------|-------|
| | | | Test Stat. | p | Test Stat. | p |
| Healthy friendships (0-4) | 7 | .75 | 0.024 | 0.517 | 0.074 | 0.055 |
| Healthy dating relats. (0-4) | 7 | .75 | 0.132 | 0.012 | 0.206 | 0.000 |
| Global character (0-4) | 5 | .78 | 0.102 | 0.007 | 0.081 | 0.046 |
| Future orientation (0-3) | 4 | .80 | 0.080 | 0.019 | 0.036 | 0.343 |
| <i>Family Variables</i> | | | | | | |
| Parental beliefs (0-3) | 3 | .58 | 0.171 | 0.000 | 0.101 | 0.004 |
| Family connectedness (0-3) | 14 | .84 | 1.365 | 0.000 | 1.637 | 0.000 |
| Parent-child commun. (0-2) | 7 | .87 | 0.029 | 0.308 | 0.067 | 0.032 |
| Parental monitoring (0-3) | 7 | .79 | -0.015 | 0.719 | 0.045 | 0.306 |

All models adjusted for age, gender, race/ethnicity, and baseline score

Summary

- Collaboration with researchers, program developers, and implementers has been critical
- Community input has been important to address local concerns
- Developing and evaluating comparable programs will allow us to:
 - examine the efficacy of both approaches
 - identify common effective elements of both approaches