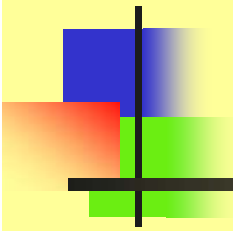


The Characteristics of Effective HIV Prevention and Sex Education Programs



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Presentation Objectives

- Describe the study methods used to identify the 17 Characteristics of Effective Programs
- Describe the three categories of the 17 Characteristics including: 1) development, 2) contents, and 3) implementation
- Discuss implications for practice and policy



Invitation from FHI

ETR's Senior Research Scientist, Douglas Kirby, PhD and his team received funding from FHI in 2005 to conduct a study to achieve two things:

1. Conduct a worldwide search for rigorously evaluated sex and HIV prevention education programs and describe their impact
2. Examine effective programs for common characteristics



Report

Impact of Sex and HIV Education Programs on Sexual Behaviors of Youth in Developing and Developed Countries

By Douglas Kirby, B.A. Laris, & Lori Rolleri

Available on the web at: <http://www.fhi.org>

Or by e-mail from Lori Rolleri at:

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Study Criteria

- Program Type
- Evaluation Design



Study Criteria: Program Type

- Goal of program:
 - reducing STD/HIV (52%)
 - unintended pregnancy (17%)
 - both goals (31%)
- Or the sexual behaviors directly related to these goals:
 - Delay initiation of sex or abstain from sexual intercourse
 - Increase the use of contraception including condoms
 - Decrease the number of sexual partners
 - Decrease the frequency of sex



Study Criteria: Program Type

- Focused on young people from 9 to 24
- Were curriculum-based programs involving groups of youth (not one-on-one interaction or counseling)
- Were implemented in schools or community settings



Study Criteria: Evaluation Design

- Employed experimental (51%) or quasi-experimental design (49%)
- Had a sample size of 100 or larger
- Measured impact on initiation of sex for at least 6 months, and other behaviors for at least 3 months
- Were published in 1990 or later



Programs Meeting Criteria

Number of studies meeting both sets of
criteria = 83

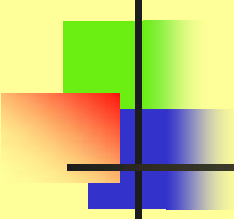
The Number of Programs with Indicated Effects on Sexual Behaviors (N=83 Studies)

	United States	Other Developed Countries	Developing Countries	All Countries in the World
<u>Initiation of Sex</u>				
▶ Delayed initiation	14	2	6	22
▶ Had no sig impact	15	6	8	29
▶ Hastened initiation	1	0	0	1
<u>Frequency of Sex</u>				
▶ Decreased frequency	7	0	2	9
▶ Had no sig impact	15	1	3	19
▶ Increased frequency	2	1	0	3
<u># of Sexual Partners</u>				
▶ Decreased number	9	0	3	12
▶ Had no sig impact	16	0	5	21
▶ Increased number	1	0	0	1

The Number of Programs with Indicated Effects on Contraceptive Behaviors

	United States	Other Developed Countries	Developing Countries	All Countries in the World
<u>Use of Condoms</u>				
▶ Increased use	18	1	5	26
▶ Had no sig impact	19	4	7	28
▶ Decreased use	0	0	0	0
<u>Use of Contraception</u>				
▶ Increased use	5	1	0	6
▶ Had no sig impact	5	1	2	8
▶ Decreased use	1	0	0	1
<u>Sexual Risk-Taking</u> (composite measures)				
▶ Reduced risk	14	0	0	14
▶ Had no sig impact	11	1	2	14
▶ Increased risk	0	0	0	0

The Number of Programs with Indicated Effects on Sexual Behaviors



	<u>Abstinence-Only Programs</u>	<u>Sex & HIV Education Programs</u>
<u>Initiation of Sex</u>		
▶ Delayed initiation	0	14
▶ Had no sig impact	3	12
▶ Hastened initiation	0	1
<u>Frequency of Sex</u>		
▶ Decreased frequency	2	5
▶ Had no sig impact	2	14
▶ Increased frequency	1	1
<u># of Sexual Partners</u>		
▶ Decreased number	1	8
▶ Had no sig impact	1	15
▶ Increased number	0	1

The Number and Percent of Programs with Indicated Effects on *Any* Behavior

	United States	Other Developed Countries	Developing Countries	All Countries in the World
<u>Any Behavior</u>				
▶ Had positive impact	36 (64%)	5 (56%)	13 (72%)	54 (65%)
▶ Had negative impact	4 (7%)	1 (11%)	1 (6%)	6 (7%)
▶ Had no sig. impact	16 (29%)	3 (33%)	4 (22%)	23 (28%)
▶ Total number	56 (100%)	9 (100%)	18 (100%)	83 (100%)

Conclusions about the Impact of Sex/HIV Education Programs

- Sex/HIV education programs do not increase sexual activity
- Some sex/HIV education programs:
 - Delay initiation of intercourse
 - Increase use of condoms/contraception
 - Reduce number of sexual partners or
 - Reduce frequency of sex
- Some were able to change 2 or more of these behaviors
- Programs that emphasize abstinence, fewer partners and condoms/contraception are compatible, not conflicting

Conclusions about the Impact of Sex/HIV Education Programs

continued

- Programs are effective with multiple groups:
 - Males and females
 - All major ethnic groups in U.S.
 - Sexually experienced and inexperienced
 - Youth in advantaged and disadvantaged communities

- Programs may be especially effective:
 - With higher risk youth in disadvantaged communities
 - In communities where teen pregnancy & STD are particularly salient issues

Conclusions about the Impact of Sex/HIV Education Programs

continued

- Sex/HIV education programs:
 - Are not a complete solution
 - Can be an effective component in a more comprehensive initiative (e.g., programs that support academic achievement, family relations, mental and physical health, etc.)



1st Policy Implication

The *most* promising strategy:

- Implement programs with strong evidence that they were effective with populations of youth similar to ones you serve



2nd Policy Implication

The *second* most promising strategy:

- Implement sex/HIV education programs with the common characteristics of those programs that were effective at changing behavior
- Important for anyone:
 - selecting a program
 - adapting a program
 - developing a new program



Uncovering the 17 Characteristics

1. 28 programs were identified that had strongest evidence for behavior change
2. 19 programs were obtained
3. In-depth content analysis of 19 effective curricula

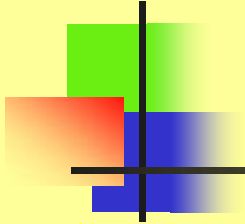


Characteristics of Effective Curricula

Three broad categories:

1. Process of curriculum development
2. Curriculum content and methods
3. Implementation of the curriculum

(see handout)



Category 1: Characteristics Describing the Process of Development



Category 1: Process of Development

1. **Involved multiple people with different backgrounds to design curriculum**
 - Health behavior theory
 - Research on adolescent sexual behavior
 - Educational theory and curriculum design
 - Experience teaching youth about sex
 - Cultural knowledge
 - Evaluation



Category 1: Process of Development

2. **Assessed relevant needs and assets of target group**
 - Reviewed quantitative data
 - STD or pregnancy rates, survey data on sexual behavior
 - Conducted focus groups with youth
 - Interviewed professionals working with youth

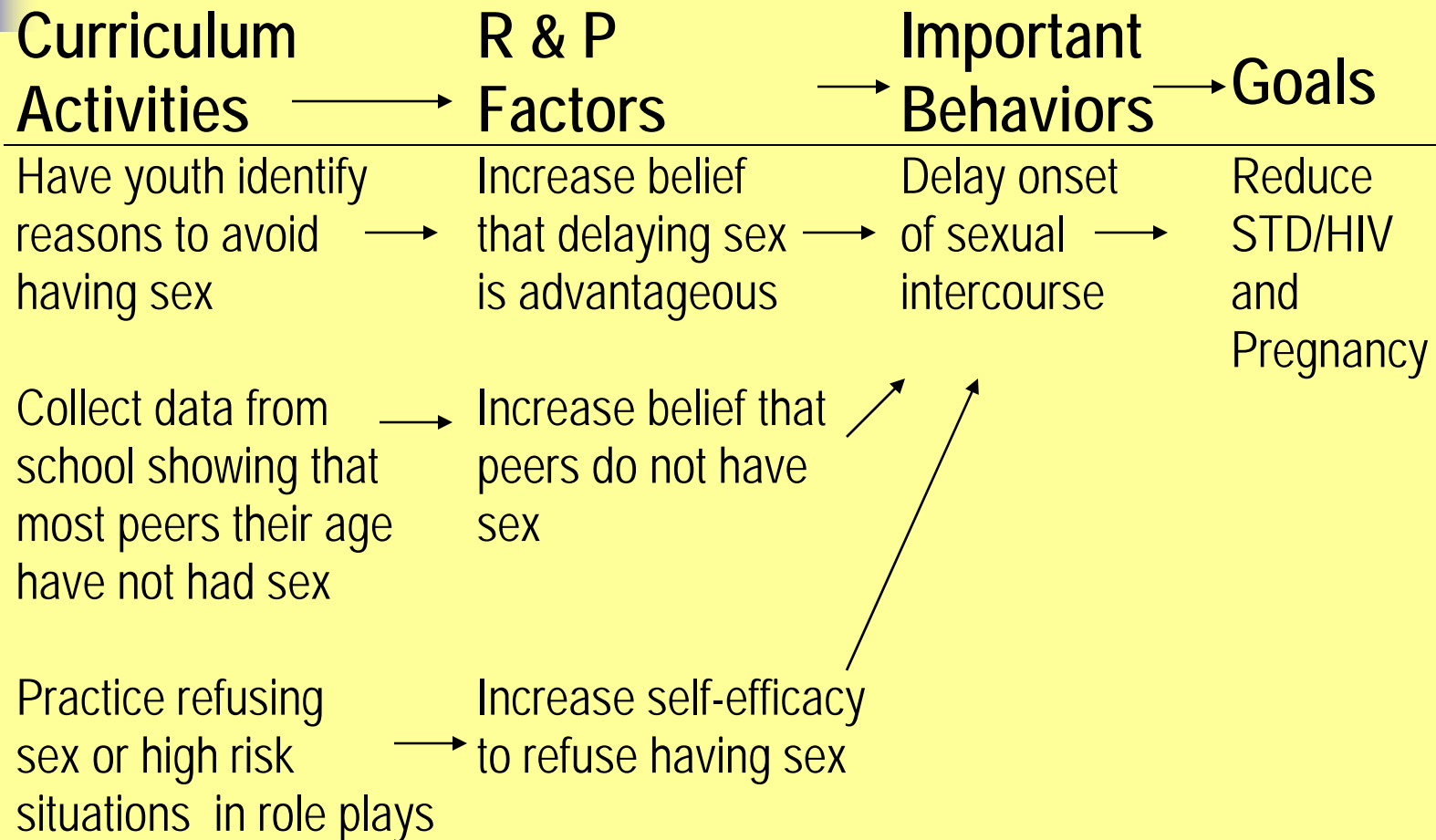


Category 1: Process of Development

3. Used logic model approach

1. Specified the **health goals** (prevention of HIV, other STD, or pregnancy)
2. Specified the **behaviors** that cause or prevent HIV, other STD or pregnancy
3. Used theory, research, and personal experience to identify the psychosocial sexual **risk and protective factors** affecting those behaviors
4. Designed **activities** to affect those factors

Example: *Part of a Logic Model*





Category 1: Process of Development

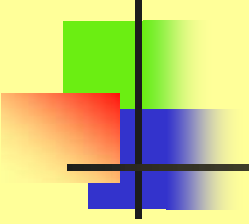
4. Designed activities consistent with community values and resources available:

- staff time
- staff skills
- facility space
- supplies



Category 1: Process of Development

5. Pilot-tested the program



Category 2: Characteristics Describing the Curriculum Content

- Goals and objectives
- Activities
- Teaching methodologies



Category 2: Curriculum Content

6. Focused on clear health goals -- the prevention of STD/HIV and/or pregnancy

- Talked about these health goals, including susceptibility and negative consequences
- Gave a clear message about these goals
- Identified behaviors leading to the health goal (see next characteristic)



Category 2: Curriculum Content

7. Focused narrowly on specific behaviors leading to these health goals

- Specified the behaviors
- Gave clear messages about these behaviors
- Addressed situations that might lead to them



Category 2: Curriculum Content

7. Continued

What were the specific behaviors?

- **STD/HIV:**
 - Abstinence
 - frequency of sex
 - Number of partners (less commonly)
 - Condom use

- **Pregnancy:**
 - Abstinence
 - frequency of sex
 - Contraceptive use



Category 2: Curriculum Content

7. Continued

What was the clear message about behavior?

- Emphasized abstinence as safest and best approach
- Encouraged condom/contraceptive use for those having sex
- Sometimes also emphasized other values:
 - Be proud, be responsible, respect yourself, stick to your limits, remain in control (for women)



Category 2: Curriculum Content

8. Addressed multiple sexual psychosocial risk and protective factors affecting sexual behaviors



Category 2: Curriculum Content

8. Continued

For abstinence:

1. Overall knowledge of sexual issues
2. Knowledge of pregnancy, STD and HIV
 - Including HIV risk
3. Personal values about sex and abstinence
4. Perception of peer norms about sex
5. Self-efficacy to refuse sex
6. Intention to abstain from sex or restrict sex or partners
7. Communication with parents or other adults about sex, condoms or contraception



Category 2: Curriculum Content

8. Continued

For condom and contraceptive use:

1. Knowledge of pregnancy, STD and HIV
2. Attitude toward risky sexual behavior and protection
3. Attitudes towards condoms
4. Perceived effectiveness of condoms to prevent STD/HIV
5. Perceptions of barriers to condom use
6. Self-efficacy to obtain condoms
7. Self-efficacy to use condoms
8. Intention to use a condom
9. Communication with parents or other adults about sex, condoms or contraception



Category 2: Curriculum Content

9. Created a safe social environment for youth to participate

- Established and enforced class rules
- Divided class by gender (occasionally)



Category 2: Curriculum Content

10. Included multiple activities to change each of the targeted risk and protective factors

- Created a logic model (see previous slides as a partial example)



Category 2: Curriculum Content

10. Continued

Included activities to increase basic knowledge about risks of teen sex and methods of avoiding sex or using protection

- Short lectures
- Class discussions
- Competitive games
- Simulations
- Statistics on prevalence
- Skits or videos
- Flip charts or pamphlets

Category 2: Curriculum Content

10. Continued

Included activities to address risk (susceptibility and severity)

- Data on the incidence or prevalence of pregnancy or STD/HIV (sometimes among youth) and their consequences
- Class discussions
- HIV+ speakers
- Videos, handouts, etc.
- Simulations
 - STD handshake
 - Monthly pregnancy risk
 - Immediate and long term effects on own lives



Category 2: Curriculum Content

10. Continued

Included activities to change individual values about abstinence and perception of peer norms

- Clear message
- Advantages of abstinence
- Forced choice value exercises
- Peer surveys/voting
- Peer modeling of responsible values
 - Discussion of lines, role plays



Category 2: Curriculum Content

10. Continued

Included activities to change individual attitudes & peer norms about condoms

- Clear message
- Discussions of effectiveness
- Peer surveys/voting
- Discussions of barriers
 - where to get
 - how to minimize hassle & loss of enjoyment
- Visits to drug stores or clinics
- Peer modeling of insisting on using condoms
 - Discussion of lines, role plays

Category 2: Curriculum Content

10. Continued

Included instructionally effective activities to improve three skills:

1. To avoid unwanted sex and unprotected sex
2. To insist on and use condom or contraception
3. To use condoms correctly

Category 2: Curriculum Content

10. Continued

To avoid unwanted/unprotected sex and to insist on using condoms or contraception

- Description of skills
- Modeling of skills
- Individual practice in skills -- Role playing
 - Everyone practices
 - Repetition
 - Increasing difficulty
 - Increasing use of own words
- Feedback (e.g., checklist)

Category 2: Curriculum Content

10. Continued

To use condoms properly

1. Arrange in order the proper steps for using condoms
2. Model and practice opening package and putting condoms over fingers, verbally stating and following the important steps



Category 2: Curriculum Content

10. Continued

Included instructionally effective activities to increase communication with parents or adults about sex (occasionally)

- Homework assignments
- Information sent home to parents



Category 2: Curriculum Content

11. Employed effective teaching methods

- Were instructionally sound
 - e.g., role playing to improve skills
- Actively involved participants
- Helped them personalize the information

Category 2: Curriculum Content



11. Continued

- Small group discussions
- Brainstorming
- Games and contests
- Simulations of risk
- Role playing
- Worksheets
- Other interactive experiential activities



Category 2: Curriculum Content

12. Employed activities, instructional methods and behavioral messages that were appropriate to the youths' culture, developmental age, gender and sexual experience

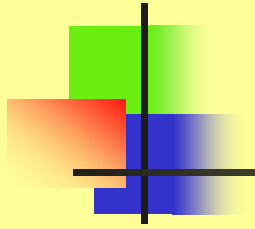


Category 2: Curriculum Content

13. Covered topics in a logical sequence

1. Basic information about HIV, other STDs or pregnancy, including susceptibility and severity of HIV, other STDs and pregnancy
2. Behaviors to reduce vulnerability
3. Knowledge, values, attitudes (including perceived barriers) and social norms involving these behaviors
4. Skills needed to perform these behaviors

Note: Curricula first increased motivation to change behavior; then provided knowledge, attitudes and skills to do so.



Category 3: Characteristics Describing the Implementation of the Curriculum

Group 3: Implementation



14. Secured at least minimal support from appropriate authorities

- Note: Were research studies and therefore required approval and support
- Provided sanction or support for educators

Group 3: Implementation



15. Selected educators with desired characteristics, trained them and supervised them

Group 3: Implementation

15. Continued

Important selection criteria:

- Could relate to youth
- Had experience with health education
- Were comfortable with topic

Possibly *unimportant* selection criteria:

- Age (adult versus peer)
- Matched gender or race

Group 3: Implementation

15. Continued

Training

- Virtually all studies trained educators
- But, one study showed level of training had no impact

Supervision

- Monitoring
- Support
 - e.g., discussed problems in small groups

Group 3: Implementation



16. If needed, implemented activities to recruit and retain youth and overcome barriers to their involvement

- Publicized the program
- Obtained parental consent
- Arranged for transportation
- Assured safety
- Implemented at convenient times
- Provided incentives to participate (e.g., food)



Group 3: Implementation

17. Implemented virtually all activities with reasonable fidelity

- Most activities
- Same setting or structure as designed



Implications for Policy

Schools and communities:

- **Should implement sex/HIV education programs:**
 - demonstrated to be effective with similar populations (1st choice) or
 - Incorporating the characteristics of effective curricula (2nd choice) – Characteristics Assessment Tool

- **If developing new programs:**
 - Should follow the 5 characteristics for developing programs and
 - Should create curricula with the 8 characteristics of effective curricula



Implications for Policy

Schools and communities:

- **Should follow the 4 characteristics for implementing programs**
 - e.g. Implement with fidelity
- **Should focus on the highest risk areas**
 - That is where the need is greatest.
 - That may be where the issue is most salient.
 - That may be where the programs can have their greatest impact.



Implications for Policy

Schools and communities:

- **Should provide adequate time and resources to implement these programs**
- **Should encourage research to develop and evaluate still more effective programs**



Implications for Policy

Schools and communities:

- Should *NOT* rely solely on these programs to reduce unintended pregnancy, STD and HIV
- Should recognize they can be an effective component

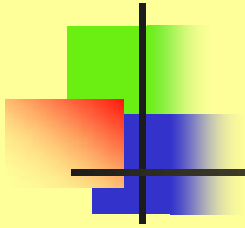


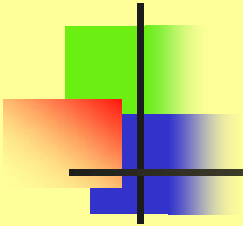
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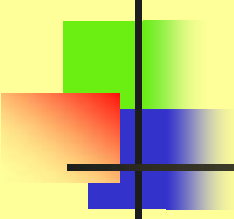
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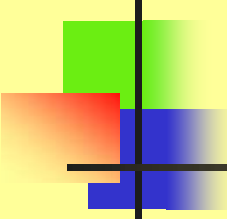






Changes from Original "10 Characteristics"

- 8 of the original now in group 2
- 1 on training now in group 3
- 1 (length of program) was dropped



Overall Factors Affecting Effectiveness of Curricula

1. The characteristics of the curriculum, its development and its implementation
2. The needs and assets of the youth being served by the program
 - E.g., awareness and knowledge of pregnancy and STD/HIV
3. The characteristics of the youths' environment
 - E.g., saliency of pregnancy or STD/HIV



Bases for the 17 Characteristics

1. Coding of 83 studies of sex and HIV programs
2. In-depth content analysis of 19 effective curricula
3. Analysis of randomized trials that compared programs having most of the characteristics with programs not having most of the characteristics



Characteristics of Effective Curricula

Three broad categories:

1. Process of development
2. Curriculum characteristics
3. Implementation



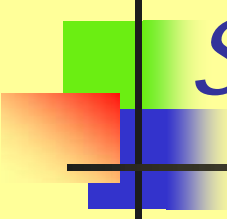
Whew – That's 17,

But there's a few more for
special groups of curricula




Characteristics of Special Groups of Effective Curricula

Characteristics of Effective *Short Curricula*

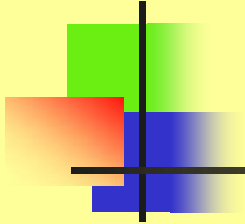


- Programs implemented after school or in non-school settings
- Youth volunteered to participate
- Programs implemented in small groups (e.g., 6 to 8)
- Programs sometimes focused on one behavior, typically condom use



Additional Characteristics of Effective Programs with *Long- Term Effects*

- Often implemented in schools
- Included 14 or more sessions
- Were sequential over 2 or more years



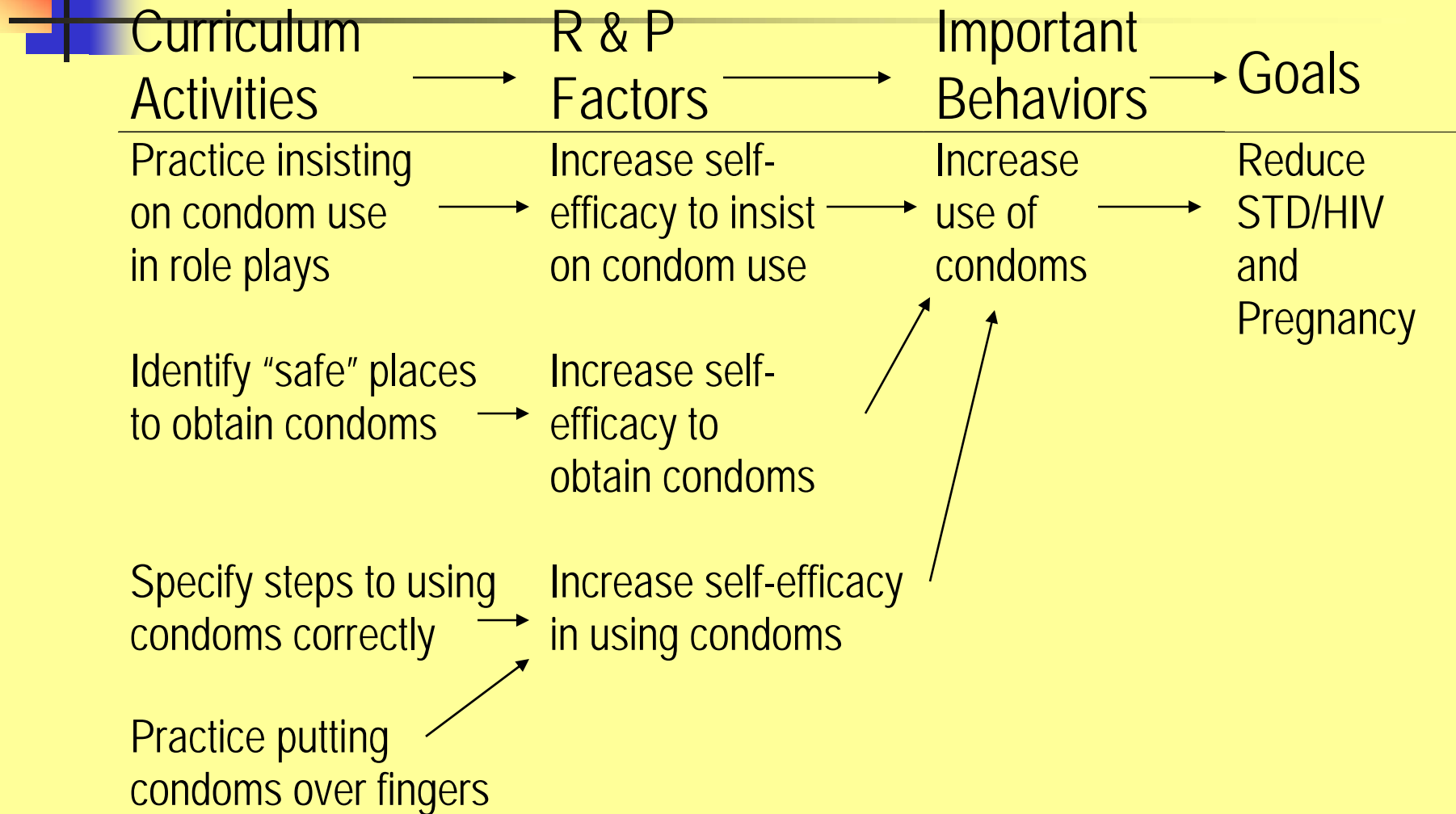
Conclusions



Conclusions about the Impact of Sex/HIV Education Programs

- About two-thirds significantly improved behavior
- But, not all curricula were effective
- Most effective curricula had the characteristics summarized
- Most curricula with nearly all the characteristics were effective

Partial Example: Continued



Category 2: Curriculum Content



2. Continued

- The clear messages were appropriate for age, sexual experience, gender and culture
- Discussed specific situations that might lead to unwanted or unprotected sex and how to avoid them or get out of them