Sex Education: Access and Impact on Sexual Behavior of Young People

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Based in Part on the Reports:

International Technical Guidance on Sexuality Education: An evidence-informed approach for schools, teachers and health educators: Volume I

- UNESCO 2009
- http://unesdoc.unesco.org/images/0018/001832/183281e.pdf

Emerging Answers 2007: Research Findings on Programs to Reduce Teen Pregnancy and Sexually Transmitted Disease

- Published by the National Campaign to Prevent Teen and Unplanned Pregnancy
- http://www.thenationalcampaign.org/EA2007/EA2007_full.pdf

Background

In many countries, there are:

- Increased gaps between puberty & marriage
- High rates of unintended & premarital pregnancy
- High rates of sexually transmitted infection (STI)
- High rates of sexually transmitted HIV
- Numerous other sex-related problems (e.g., gender-based pressure & violence)

Curriculum-based sex ed programs

Can be implemented in:

- Schools
  - Can reach many young people (most 5-13 year olds attend school)
  - Provide a structured setting designed to teach
  - Can reach young people before or during the time they initiate sex
- Clinics
  - Can reach older and higher risk youth
  - Can reach them during “teachable moments”
- Other community organizations and settings

Sex and STD/HIV Programs

Goals:

- Decrease unintended pregnancy
- Decrease STIs including HIV/AIDS
- Improve sexual health in other ways

Important questions:

Do comprehensive sex ed programs:

- Increase sexual behavior?
- Delay sex or increase use of condoms or other forms of contraception?
- Actually reduce unintended pregnancy and STI rates?

Study Criteria

Programs had to:

- Be a curriculum- and group-based sex or STI/HIV education program
  - Not only spontaneous discussion, only one-on-one interaction, or only broad school, community, or media awareness activities
- Focus primarily on sexual behaviour
  - As opposed to covering a variety of risk behaviours such as drug use, alcohol use, and violence in addition to sexual behaviour
- Cover more than just abstinence until marriage
- Focus on adolescents up through age 24 outside of the U.S. or up through age 18 in the U.S.
- Be implemented anywhere in the world.

Study Criteria

Research methods had to:

- Include a reasonably strong experimental or quasi-experimental design with well-matched intervention and comparison groups and both pretest and posttest data.
- Have a sample size of at least 100.
- Measure programme impact on one or more of the following sexual behaviours for at least 3-6 months:
  - initiation of sex and frequency of sex,
  - number of sexual partners,
  - use of condoms and use of contraception more generally,
  - composite measures of sexual risk (e.g., frequency of unprotected sex.

Study Criteria

Study had to:

- Be completed in 1990 or thereafter
- But did not have to be published in a peer-reviewed journal
  - Most were published in peer reviewed journals

Results

The Number of Sex Education Programs with Indicated Effects

- Nearly all programs increased knowledge
  - Important for a “rights-based” approach
  - Important to educators
- Some helped clarify values & attitudes, increased skills and improved intentions

The Number of Sex Education Programs with Indicated Effects on Sexual Behaviors

	Developing Countries (N=29)	United States (N=47)	Other Developed Countries (N=11)	All Countries in the World (N=87)
Initiation of Sex				
Delayed initiation	6	15	2	23 (37%)
Had no sig impact	16	17	7	40 (63%)
Hastened initiation	0	0	0	0 (0%)
Frequency of Sex				
Decreased frequency	4	6	0	10 (31%)
Had no sig impact	5	15	1	21 (66%)
Increased frequency	0	0	1	1 (3%)
# of Sexual Partners				
Decreased number	5	11	0	16 (44%)
Had no sig impact	8	12	0	20 (56%)
Increased number	0	0	0	0 (0%)

The Number of Sex Education Programs with Indicated Effects on Sexual Behaviors

	Developing Countries (N=29)	United States (N=47)	Other Developed Countries (N=11)	All Countries in the World (N=87)
Use of Condoms				
Increased use	7	14	2	23 (40%)
Had no sig impact	14	17	4	35 (60%)
Decreased use	0	0	0	0 (0%)
Use of Contraception				
Increased use	1	4	1	6 (40%)
Had no sig impact	3	4	1	8 (53%)
Decreased use	0	1	0	1 (7%)
Sexual Risk-Taking				
Reduced risk	1	15	0	16 (53%)
Had no sig impact	3	9	1	13 (43%)
Increased risk	1	0	0	1 (3%)

The Number and Percent of Sex Education Programs with Indicated Effects on:

One or More Behaviours

Had positive impact	About two-thirds
Had negative impact	About four percent

Any Two Behaviours

Had positive impact	More than one-fourth
Had negative impact	None

Impact on Pregnancy and STI Rates

- Most studies underpowered
- Mema kwa Vijuana in Mwanza,Tanzania
  - Marginally powered
  - Had positive effects on behavior
  - No positive effects on either STI or pregnancy rates
- Other studies had a few positive results on pregnancy and STI rates
  - Even with bio-markers

Impact on Pregnancy and STI Rates

Draft: U.S. meta-analysis:

- Pregnancy (N=11) Relative Risk = .89
  - Reduced pregnancy by 11%
- STI (N=8) Relative Risk = .69
  - Reduced STI rate by 31%

Conclusions about the Impact of Sex and STD/HIV Education Programs

- Sex/HIV education programs
  - Do not increase sexual activity
- Some sex/HIV education programs:
  - Delay initiation of intercourse
  - Reduce number of sexual partners or
  - Increase use of condoms/contraception
  - Reduce unprotected sex
  - Reduce pregnancy and STI rates
- Some do two or more
- Some do none of these

Conclusions about the Impact of Sex and STD/HIV Education Programs

- Sex/HIV education programs that change behavior are different from those that do not change behavior.
- 17+ Characteristics distinguish between them. E.g., Effective programs
  - Focus on sexual risk behavior
  - Give a clear message about that behavior
  - Address cognitive factors that affect behavior
  - Use interactive engaging activities to change these factors and thereby change behavior

Conclusions about the Impact of Sex and STD/HIV Education Programs

- Most effective programs incorporate these characteristics.
- Nearly all programs with these characteristics significantly change behavior

Are programs effective with different types of youth and in different countries?

Conclusions about the Impact of Sex/HIV Education Programs *continued*

- Programs are quite robust; they are effective with multiple groups:
  - Males and females
  - Sexually experienced and inexperienced
  - Youth in advantaged and disadvantaged communities
  - Different countries and regions in the world

Countries with Effective Programs

North America	South America	Europe	Africa	Asia
United States Canada	Belize Brazil Chile Mexico	United Kingdom	Kenya Namibia Nigeria South Africa Tanzania Zimbabwe	China Thailand

Conclusions about the Impact of Sex/HIV Education Programs *continued*

Sex and STI/HIV education programs:

- Are not a complete behavioral solution
- Can be an effective component in a more comprehensive behavior change initiative

Are programs effective when they are replicated by others?

Replications of Studies: *Reducing the Risk*

California schools: 16 sessions

- Delayed sex; increased contraceptive use

Arkansas schools: 16 sessions

- Delayed sex; increased condom use

Kentucky schools: 16 sessions

- Delayed sex; no impact on condom use

Kentucky schools: 12 sessions

- Delayed sex; no impact on condom use

Replications of Studies: *"Be Proud, Be Responsible" or "Making Proud Choices"*

Philadelphia: 5 hours on Saturdays

- Reduced sex & # partners; increased condom use

Philadelphia: 8 hours on Saturdays

- Reduced freq of sex; increased condom use

86 CBO in northeast: 8 hours on Saturdays

- Increased condom use

Philadelphia: 8 hours on Saturdays

- Reduced sex & # partners; increased condom use

Cleveland: 8 sessions ***in school***

- Deleted one condom activity
- No significant effects on any behavior

Replications of Studies: *Becoming a Responsible Teen*

Jackson, Miss health center: 12 90-minute sessions

- Delayed sex; reduced frequency; increased condom use

Residential drug treatment: 12 90-minute sessions

- Reduced sex & # partners; increased condom use

Juvenile reformatory: *6 1-hour sessions*

- No effects

Replications of Studies: *Focus on Kids*

Baltimore recreation center: 8 sessions

- Increased condom use

West Virginia rural areas: 8 90-minute sessions

- Deleted some condom activities
- No effects

Replications of Studies: Preliminary Conclusions

- Curricula can remain effective when implemented with fidelity by others!
  - Fidelity: All activities; similar structure
- Substantially shortening programs may reduce behavioral impact
- Deleting condom activities may reduce impact on condom use
- Moving from voluntary after-school format to school classroom may reduce effectiveness

Strengths of the Programs

- Include school-based programs
  - Can reach large numbers of young people before they have sex
  - Have the infrastructure to implement such programs (with appropriate training)
- Include clinic-based programs
  - Attended by high risk youth
- Include community-based programs
  - Can reach young people who have left school

Strengths of the Evidence

- Many studies with positive behavioral effects
- Many randomized controlled trials
- Rather consistent results
  - Especially for those that incorporate 17+ characteristics and are implemented with fidelity
- Replications of results are consistently positive if programs are implemented with fidelity

Limitations of the Evidence

- Some studies have small sample sizes (hundreds)
- Few studies measured impact on actual STI or pregnancy rates
- Few studies measured impact after 3 years
- Not all programs have positive impact on all groups of young people
- Few or no studies of large scale roll out

Limitations of the Evidence

- Need more studies in developing countries
- Need more studies in Africa and other countries with generalized HIV epidemics
- Need greater study of critical characteristics of effective programs
- Need more studies on how to most effectively address gender

Are effective programs implemented widely?

But what about actual access to effective sex ed programs?

- Little good data exist for most countries
- Anecdotal, observational and some survey data suggest:
  - Most youth do not participate in effective programs – China, India, Africa, Latin America, US
  - In some countries, youth do not participate in any sex education programs
  - Even in countries with many studies (e.g., U.S.), most youth do not participate in effective programs

Implications of the Evidence & Recommendations

- Should adapt and implement "proven" programs with similar populations and cultures
  - U.S.
- Or, should develop and implement programs that incorporate the characteristics of effective programs
- Should conduct on-going rigorous research on impact and implementation in order to enhance the impact of programs

Thank You

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