Community Preventive Services Task Force

Preventing HIV/AIDS, Other STIs, and Teen Pregnancy: Comprehensive Risk Reduction Interventions

Task Force Finding and Rationale Statement

Table of Contents

Intervention Definition 2

Task Force Finding 2

Rationale 2

Publications 4

Disclaimer 4

Task Force Finding and Rationale Statement

Intervention Definition

Comprehensive Risk Reduction (CRR) interventions promote behaviors that prevent or reduce the risk of pregnancy, HIV, and other sexually transmitted infections (STIs). These interventions may: a) suggest a hierarchy of recommended behaviors that identifies abstinence as the best, or preferred, method but also provides information about sexual risk reduction strategies; b) promote abstinence and sexual risk reduction without placing one approach above another; or c) promote sexual risk reduction strategies, primarily or solely. This review evaluated CRR interventions delivered in school or community settings to groups of adolescents (10-19 years old). These interventions may also include other components such as condom distribution and STI testing.

Task Force Finding (June 2009)

The Community Preventive Services Task Force recommends group-based comprehensive risk reduction (CRR) interventions delivered to adolescents to promote behaviors that prevent or reduce the risk of pregnancy, HIV, and other sexually transmitted infections (STIs). The recommendation is based on sufficient evidence of effectiveness in:

- Reducing a number of self-reported risk behaviors including:
  - engagement in any sexual activity
  - frequency of sexual activity
  - number of partners
  - frequency of unprotected sexual activity
- Increasing the self-reported use of protection against pregnancy and STIs
- Reducing the incidence of self-reported or clinically-documented sexually transmitted infections

There is limited direct evidence of effectiveness, however, for reducing pregnancy and HIV.

Rationale

Our review identified 62 studies and 83 study arms that used a comprehensive risk reduction (CRR) strategy. The effect estimates from this review are of sufficient magnitude to support a conclusion that CRR interventions can have a beneficial effect on public health.

This review contains enough studies of adequate quality to support a recommendation based on strong evidence of effectiveness. However, the Task Force concluded that there is sufficient, rather than strong, evidence of effectiveness due to variations across studies in intervention effect estimates. The summary statistics for each outcome are listed in the table below.

Meta-Analysis Results: Comprehensive Risk Reduction

Outcomes [A]	# of observations	OR	95% CI	Estimated RR
Sexual Activity	57	0.84	0.75, 0.95	0.88
Frequency of Sexual Activity	14	0.81	0.72, 0.90	[B]

Outcomes [A]	# of observations	OR	95% CI	Estimated RR
Number of Partners	28	0.83	0.74, 0.93	0.86
Unprotected Sexual Activity	29	0.70	0.60, 0.82	0.75
Protection [C]	63	1.39	1.19, 1.62	1.13
Condom Use [C]	48	1.45	1.20, 1.74	1.12
Oral Contraceptive Use [C]	10	1.29	0.89, 1.85	1.22
Dual Use [C]	5	1.21	0.70, 2.12	1.17
Sexually Transmitted Infections	8	0.65	0.47, 0.90	0.69
Pregnancy	11	0.88	0.60, 1.30	0.89
HIV	0	--	--	--

[A] All of these outcomes were self-reported, with the exception of STIs, which were either self-reported or clinically documented.
[B] Unable to calculate
C Odds ratio (OR)>1.0 indicate beneficial effects.
CI = Confidence Interval
RR = Relative Risk

The evidence supports a conclusion that CRR interventions are applicable across a range of populations and settings. Studies included representation from a range of ages (mean min/max: 10-18 years); male only, female only and coed groups; majority African American, majority Caucasian, majority Hispanic and mixed race samples; both baseline virgin and non-virgin samples; and school and community settings. While the effects were generally similar for age, race/ethnicity, baseline virginity status and school and community settings, the results suggest that these interventions may be somewhat more effective for boys than girls. Although the overall results for STIs demonstrate similar beneficial effects in school and community settings, some caution is warranted in generalizing these STI results to low-risk populations in school settings because most of the evidence on this outcome comes from samples of adolescents at high risk for STIs who were recruited in clinical settings.

The implementation of the interventions varied in several potentially important ways, such as deliverer (peer or adult), whether they were targeted to group characteristics, focus (HIV, pregnancy or both) and the inclusion of other interventions in addition to CRR (e.g., condom distribution). There was no consistent evidence regarding the effects of any of these variables on the outcomes evaluated. However, the inability to detect such effects does not suggest that

they are unimportant, and additional research to clarify the characteristics that maximize the effectiveness of CRR programs would be valuable.

All included studies were randomized controlled trials (RCTs) or controlled before- after (CBA) designs, and nearly all of the outcomes were self reported. Effects were generally similar for RCTs and CBA studies.

With regard to harms, no evidence was found in this review to support concerns regarding the potential for CRR interventions to result in an increase in sexual activity. To the contrary, the evidence indicated that CRR interventions reduce both prevalence of sexual activity and frequency of sexual activity.

Publications

Chin HB, Sipe TA, Elder RW, Mercer SL, Chattopadhyay SK, Jacob V, Wethington HR, Kirby D, Elliston DB, Griffith M, Chuke SO, Briss SC, Ericksen I, Galbraith JS, Herbst JH, Johnson RL, Kraft JM, Noar SM, Romero LM, Santelli J, Community Preventive Services Task Force. The effectiveness of group-based comprehensive risk-reduction and abstinence education interventions to prevent or reduce the risk of adolescent pregnancy, Human Immunodeficiency Virus, and sexually transmitted infections: two systematic reviews for the Guide to Community Preventive Services. *Am J Prev Med* 2012;42(3):272-94.

Sipe TA, Chin HB, Elder RW, Mercer SL, Chattopadhyay SK, Jacob V, Community Preventive Services Task Force. Methods for conducting Community Guide systematic reviews of evidence on effectiveness and economic efficiency of group-based behavioral interventions to prevent adolescent pregnancy, Human Immunodeficiency Virus, and other sexually transmitted infections: comprehensive risk reduction and abstinence education. *Am J Prev Med* 2012;42(3):295-303.

Community Preventive Services Task Force. Recommendations for group-based behavioral interventions to prevent adolescent pregnancy, Human Immunodeficiency Virus, and other sexually transmitted infections: comprehensive risk reduction and abstinence education. *Am J Prev Med* 2012;42(3):304-7.

Barbot O. Getting our heads out of the sand: using evidence to make systemwide changes. *Am J Prev Med* 2012;42(3):311-12.

Weed SE. Sex education programs for schools still in question: a commentary on meta-analysis. *Am J Prev Med* 2012;42(3):313-15.

Wiley DC. Using science to improve the sexual health of America's youth. *Am J Prev Med* 2012;42(3):308-10.

Disclaimer

Document last updated March 11, 2013