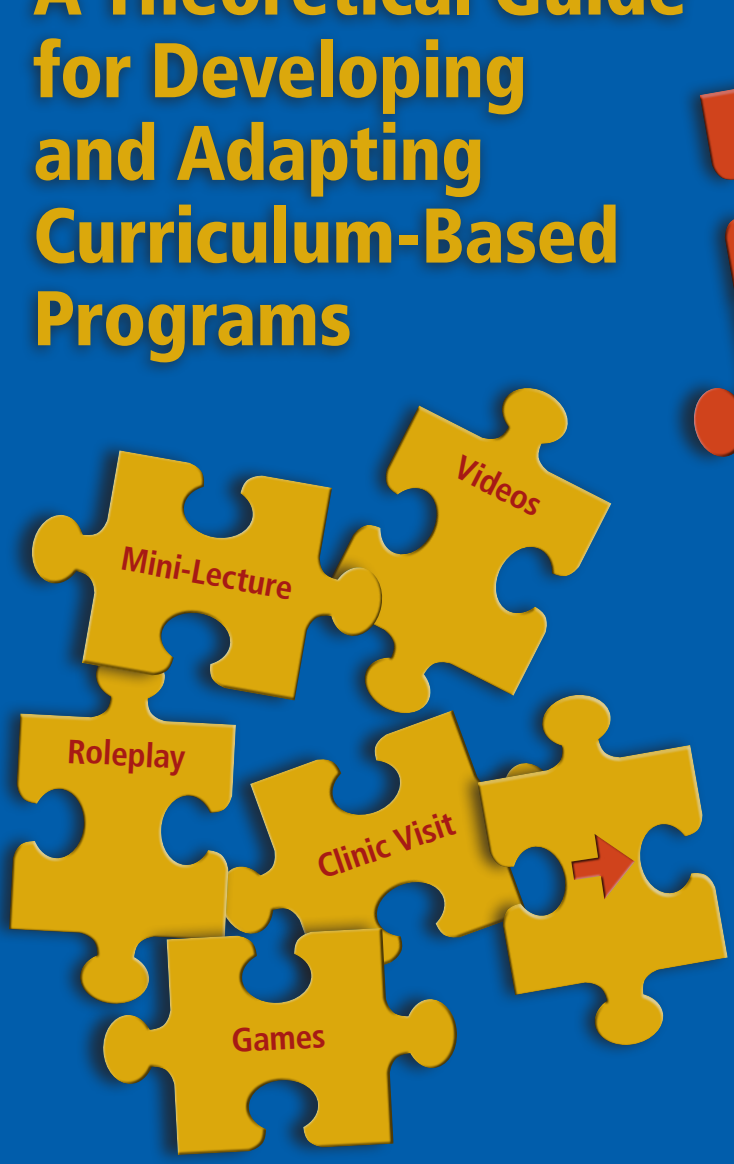
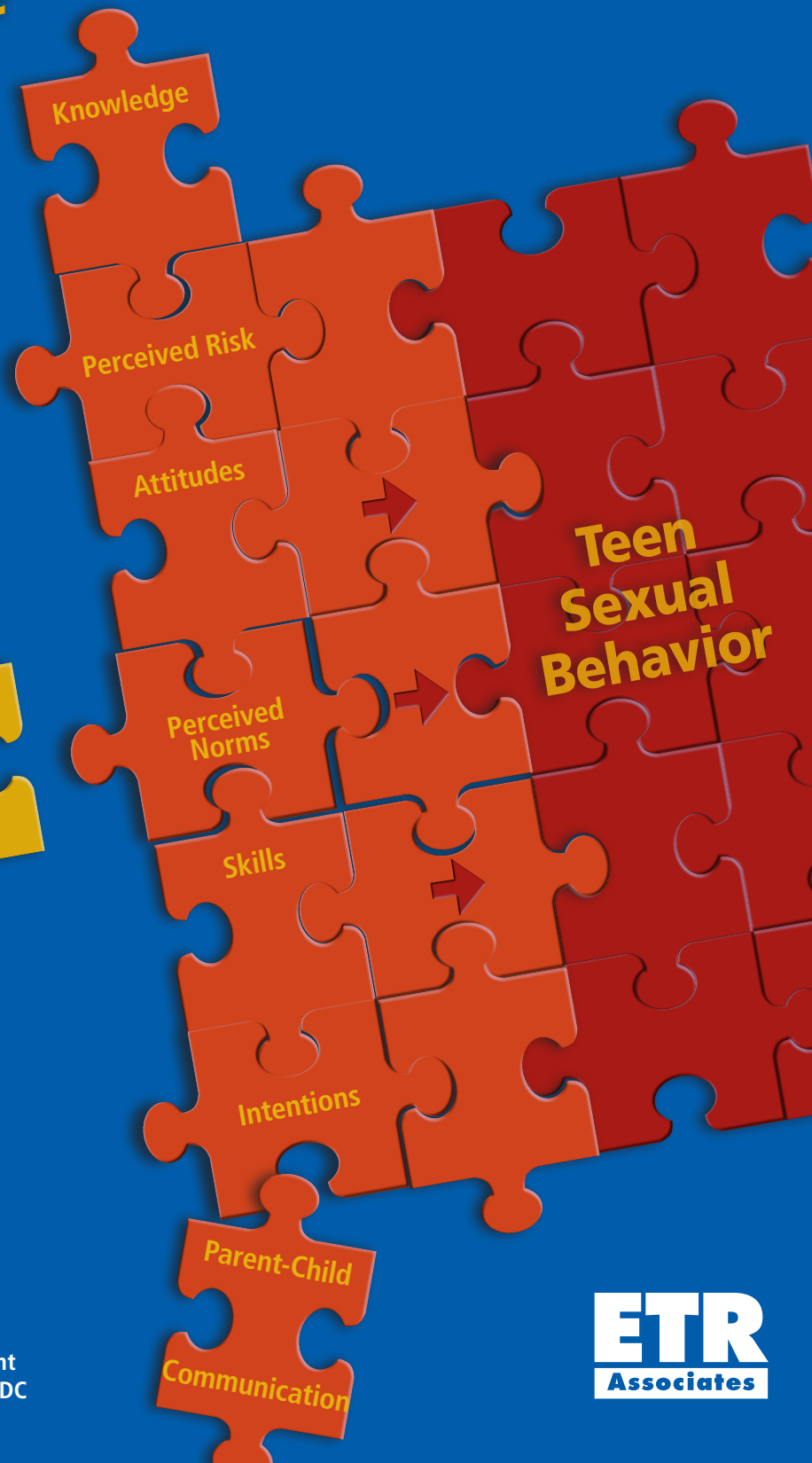
Reducing Adolescent Sexual Risk

A Theoretical Guide for Developing and Adapting Curriculum-Based Programs





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The South Carolina Campaign to Prevent Teen Pregnancy (SC Campaign) works in all of the state's 46 counties to prevent adolescent pregnancy through education, technical assistance, public awareness, advocacy and research. Since its inception in 1994, the SC Campaign has established itself as the leader and quality resource in South Carolina for comprehensive, medically accurate, age-appropriate, science-based approaches and evidence-based programs to prevent teen pregnancy. For more information, visit www.teenpregnancysc.org or www.carolinateenhealth.org.

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Dedication

This volume is dedicated to Guy Parcel, Ph.D., Professor of Health Promotion and Behavioral Health, University of Texas School of Public Health, Austin Regional Campus, former Dean of the School of Public Health at the University of Texas Health Science Center at Houston and former director of the Center for Health Promotion and Prevention Research. Guy has been an incredibly productive and prolific leader in the fields of health education and public health more generally. His many accomplishments include helping to develop and promote intervention mapping, a very rigorous and systematic approach to designing effective programs. In our joint work together, I learned a great deal from Guy about approaches to effective curriculum design, as well as program evaluation and project management. Much of the foundation of this book was stimulated by his approach and ideas.

Douglas Kirby

Acknowledgments

This book evolved out of a series of all-day trainings that were jointly conceived by the South Carolina Campaign to Prevent Teen Pregnancy and myself and that I conducted over several years for the SC Campaign. Each training focused on two or three risk and protective factors (and/or background topics) that became the basis for the chapters in this book. I want to thank Suzan Boyd, former Executive Director of the SC Campaign; Forrest Alton, current Executive Director of the SC Campaign; and others at the Campaign for their intellectual, administrative and financial support for those trainings and, ultimately, this volume.

I especially want to thank my co-authors—Karin Coyle, Forrest Alton, Lori Rolleri and Leah Robin—for their contributions to this book. They helped conceptualize the book, review and edit each chapter, summarize activities as examples, arrange focus groups to review the entire volume and obtain funding. Karin Coyle also wrote parts of two chapters and provided particularly helpful guidance on the remaining chapters. I also want to thank Lisa Romero for creating the resource section and reviewing the volume.

The book was strengthened by the reviews of numerous experts in the field, including Bill Bacon, Patricia Dittus, Joyce Fetro, Ericka Gordon, Angie Hinzey, Chris Markam, Susan Milstein, Leslie Pridgen, Mary Prince, Nicole Ressa, Stacy Sirois and Antonia Vilarruel. Without question, this book benefitted from their innumerable suggestions.

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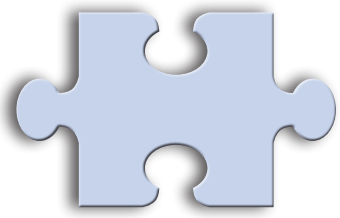


1 Introduction

This book was created to help others design or adapt their own curricula.

Overview of This Book

Unintended pregnancy and sexually transmitted diseases (STDs), including HIV, continue to be important problems among young people in the United States. These problems can be addressed effectively if young people reduce their sexual risk behaviors—for example, if they initiate sexual activity later, have sex (meaning vaginal, anal and oral sexual activity) less frequently, have fewer sexual partners and use condoms or contraception more consistently. However, programs designed to address unintended pregnancy and STDs cannot directly control the sexual risk behavior of young people; rather, they can only affect various risk and protective factors that, in turn, affect decision making and behavior among young people.

Risk and protective factors include biological factors such as age or maturation, community factors such as economic opportunities or crime rates, and family factors such as strong families and monitoring of children.

However, a very important group of risk and protective factors is "sexual psychosocial" factors. These include knowledge, perceptions of risk, attitudes, perceptions of norms, self-efficacy and intentions. These are particularly important because 1) they have a very strong impact on sexual decision making and behavior and 2) educational programs, either in school or out of school, can significantly improve each of them, if curricula include the right kinds of activities that incorporate important instructional principles.

Although it is relatively easy to increase knowledge, it is not easy to markedly improve all of these factors. If curriculum activities fail to include important instructional principles, they may fail to improve these factors and may fail to have an impact on behavior. On the other hand, there is considerable evidence that all of these factors are amenable to change when appropriate instructional techniques are used. Thus, these principles are important to achieve behavior change.

This book is not a curriculum itself. Instead, it is designed to help reproductive health professionals, educators, curricula selection committees and others design or adapt curricula so that they focus on risk and protective factors that are related to sexual risk behavior and use instructional principles most likely to improve the targeted factors. It can also be used to select curricula that incorporate these features,

but it does not focus on other important criteria for selecting curricula.

We have structured the book around risk and protective factors most likely to be changed by a curriculum-based program. Each chapter focuses on a different risk or protective factor, summarizing the available evidence showing that the factor affects sexual behavior and discussing relevant behavior change theory and important instructional principles for improving the factor.

Although most of the examples in this book come from activities used primarily with middle or high school-aged youth, it also can be useful for people designing curricula for younger or older youth. Finally, even though all the examples involve sexuality, the risk and protective factors, the theories and the pedagogical principles may apply to many health behaviors other than sexual risk, such as eating nutritiously, exercising and preventing substance abuse. However, theories and research on the factors affecting these other behaviors should be thoroughly reviewed before applying the instructional principles discussed.

Sexual Risk Behavior and Its Consequences

In the United States, young people engage in considerable sexual risk behavior prior to or outside of marriage. For example:

- Roughly half of all high school students report having had sex at least once and close to two-thirds report having sex before they graduate from high school (Centers for Disease Control and Prevention 2010b).
- Although 80 to 90 percent of teens report using contraception during their most recent act of sexual intercourse, many teenagers do not use contraceptives correctly and consistently. Among 15- to 19-year-old women relying upon oral contraceptives, only 70 percent take a pill every day (Abma et al. 1997). Among never-married men 15-19 who had sex in the previous year, only 47 percent used a condom every time they had sex in that year (Abma 2004).

As a result, pregnancy rates and birth rates among U.S. young adults remain very high relative to other developed countries.

- In 2004, the latest year for which data are published, the rate of unplanned pregnancy was highest among women 18-19 and 20-24 years of age. In these age groups, more than one unplanned pregnancy occurred for every 10 women, a rate twice that for women overall (Finer and Henshaw 2006; Ventura, Abma et al. 2008).
- Among 15- to 19-year-old teens, about 72 of every 1,000 women became pregnant in 2006 (the last year for which data are available) (Guttmacher Institute 2010). This means that cumulatively, more than 30 percent of teenage women in the United States became pregnant at least once by the age of 20.
- These rates were much higher for Hispanics (127 per 1,000 women) and blacks (126 per 1,000 women) than for non-Hispanic whites (44 per 1,000 women).
- In absolute numbers, about 750,000 women under age 20 become pregnant each year (Guttmacher Institute 2010).
- More than 80 percent of these pregnancies are unplanned (Finer and Henshaw 2006).
- Among young women ages 20-24, each year 1.7 million pregnancies occur, 58 percent of which are unplanned. Among *unmarried* women 20-24, 72 percent of their pregnancies are unplanned (Connor 2008).

These unintended pregnancies have negative effects on the young adults involved, their children and society at large.

- Teenage mothers are less likely to complete school, less likely to go to college, more likely to have large families and more likely to be single than their peers who are not teenage mothers, increasing the likelihood that they and their children will live in poverty. Negative consequences are particularly severe for younger mothers and their children (Hoffman 2006).

- Children of teenage mothers are likely to have less supportive and stimulating home environments, lower cognitive development, less education, more behavior problems and higher rates of both incarceration (for boys) and adolescent childbearing than children of non-teenage mothers (Hoffman 2006).

STDs are also a large problem. Compared to older adults, sexually active adolescents and young adults ages 24 and younger are at higher risk for acquiring STDs. For example:

- The most common STDs among young people are human papillomavirus (HPV), trichomoniasis and chlamydia. Although young adults (24 and under) represent only 25% of the sexually active population, they account for nearly half (48 percent) of the new STD cases every year. In 2004, there were more than nine million cases of STD reported in this age group (Weinstock, Berman et al. 2004).
- In addition, more than 7,000 young adults 24 and under were diagnosed with HIV in 2008 (Centers for Disease Control and Prevention 2010a).
- The prevalence of STDs are typically much higher among African-American young people than non-Hispanic whites (Centers for Disease Control and Prevention 2008a). In 2006, for example, the rates of gonorrhea among African-American 15- to 19-year-old women were 15 times greater than those for white women in the same age group. The rate for African-American men ages 15-19 was 39 times higher than for 15- to 19-year-old white men (Centers for Disease Control and Prevention 2008).

Impact of Curriculum-Based Sex and STD/HIV Education Programs

In response to these high rates of unintended pregnancy and STDs, many people concerned about adolescent reproductive health have implemented a wide variety of programs to reduce sexual risk. Aside from contraceptive services, STD testing and treatment and other reproductive health services provided in clinics, the most commonly implemented types of prevention programs are curriculum-based sex and STD/HIV education programs. These programs are based on a written curriculum and are implemented among groups of youth. They are in contrast to one-on-one peer programs; health fairs; youth development programs and other kinds of programs that also have an impact on adolescent sexual behavior. They are commonly implemented in schools where very large numbers of young people can be reached before and after they have initiated sexual activity. However, curriculum-based sex and STD/HIV education programs also have been implemented effectively after school and in non-school settings such as clinics, community centers, housing projects and elsewhere.

Multiple reviews of sex and STD/HIV education programs have been conducted in the United States and elsewhere (Johnson, Carey et al. 2003; Robin, Dittus et al. 2004; Kirby 2007; Underhill, Operario et al. 2007, UNESCO 2009). They consistently support the following conclusions (see Table 1-1):

1. Sex and STD/HIV education programs do not increase sexual behavior, even when they encourage sexually active young people to use condoms or other forms of contraception.
2. Some programs delay the onset of sexual intercourse, reduce the frequency of sex, reduce the number of sexual partners, increase condom use, increase other contraceptive use, and/or reduce sexual risk.
3. Not all programs are effective at changing behavior. According to one review (Kirby 2008), about two-thirds of the programs had a positive significant impact on one or more sexual behaviors among the entire sample or among important sub-groups within the sample (e.g., males or females). About one-third did not. And one-third of the programs improved two or more behaviors; the remainder did not.
4. Numerous characteristics distinguish the effective programs from the ineffective ones (Kirby 2007). For example, the effective programs

used psychological theory and research to identify the cognitive risk and protective factors that affect behavior and then developed program activities to change those factors, gave clear messages about behavior and taught skills to avoid undesired and unprotected sexual activity. Table 1-2 lists all the distinguishing characteristics.

5. Some programs for parents also have been found to be effective at increasing communication between parents and their adolescents and at reducing adolescent sexual risk behavior (Kirby 2007).

Identifying and Improving Important Risk and Protective Factors

As stated above, curriculum-based sex and STD/HIV programs, as well as other programs, cannot directly control whether young people engage in sexual activity or whether they use protection; instead, young people make their own decisions about sexual behavior and use of protection. Thus, to be effective, programs must markedly improve those risk and protective factors that have an important impact on youths' decision making about sexual behavior.

Logically, if programs correctly identify the factors that have a clear impact on behavior and if program activities markedly change those factors, then the program will have an impact on behavior. However, if programs identify factors that only weakly affect behavior or fail to change the factors sufficiently, then they may not affect behavior. Consequently, it is critical both to identify the important factors affecting behavior and to implement programs designed to change those factors.

Factors that have a large impact on behavior include internal cognitive factors (such as knowledge, attitudes, skills and intentions) and external factors such as access to adolescent-friendly reproductive health services. Curriculum-based programs, especially those in schools, typically focus on internal cognitive factors. These factors are very proximal (closely linked to behavior conceptually) and are related to behavior.

Table 1-1 The Number of Curriculum-Based Sex Education Programs with Indicated Effects on Sexual Behaviors

	United States (N=47)	Other Developed Countries (N=11)	Developing Countries (N=29)	All Countries in the World (N=87)
Initiation of Sex				
➤ Delayed initiation	15	2	6	23
➤ Had no significant impact	17	7	16	40
➤ Hastened initiation	0	0	0	0
Frequency of Sex				
➤ Decreased frequency	6	0	4	10
➤ Had no significant impact	15	1	5	21
➤ Increased frequency	0	1	0	1
Number of Sex Partners				
➤ Decreased number	11	0	5	16
➤ Had no significant impact	12	0	8	20
➤ Increased number	0	0	0	0
Use of Condoms				
➤ Increased use	14	2	7	23
➤ Had no significant impact	17	4	14	35
➤ Decreased use	0	0	0	0
Use of Contraception				
➤ Increased use	4	1	1	6
➤ Had no significant impact	4	1	3	8
➤ Decreased use	1	0	0	1
Sexual Risk-Taking				
➤ Reduced risk	15	0	1	16
➤ Had no significant impact	9	1	3	13
➤ Increased risk	0	0	1	1

Previous studies of curriculum-based sex and STD/HIV education programs have demonstrated that those programs that effectively delayed the initiation of sex, reduced the frequency of sex, or reduced the number of sexual partners sometimes focused on and improved the following cognitive factors (Kirby 2007):

1. Knowledge, including knowledge of sexual issues, pregnancy, HIV and other STDs (including methods of prevention)
2. Perception of pregnancy risk, HIV risk, and other STD risk
3. Personal values about sexuality and abstinence
4. Perception of peer norms and behavior about sex
5. Self-efficacy to refuse sexual activity and to use condoms and contraception

Table 1-2 The 17 Characteristics of Effective Programs*

The Process of Developing the Curriculum	The Contents of the Curriculum Itself	The Process of Implementing the Curriculum
1. Involved multiple people with different backgrounds in theory, research and sex and STD/HIV education to develop the curriculum	**Curriculum Goals and Objectives**	14. Secured at least minimal support from appropriate authorities such as departments of health, school districts or community organizations
2. Assessed relevant needs and assets of target group	6. Focused on clear health goals—the prevention of pregnancy and/or STD/HIV	15. Selected educators with desired characteristics (whenever possible), trained them and provided monitoring, supervision and support
3. Used a logic model approach to develop the curriculum that specified the health goals, the behaviors affecting those health goals, the risk and protective factors affecting those behaviors and the activities addressing those risk and protective factors	7. Focused narrowly on specific behaviors leading to these health goals (e.g., abstaining from sex or using condoms or other contraceptives), gave clear messages about these behaviors and addressed situations that might lead to them and how to avoid them	16. If needed, implemented activities to recruit and retain youth and overcome barriers to their involvement, e.g., publicized the program, offered food or obtained consent
4. Designed activities consistent with community values and available resources (e.g., staff time, staff skills, facility space and supplies)	8. Addressed multiple sexual psychosocial risk and protective factors affecting sexual behavior (e.g., knowledge, perceived risks, values, attitudes, perceived norms and self-efficacy)	17. Implemented virtually all activities with reasonable fidelity
5. Pilot-tested the program	**Activities and Teaching Methodologies**	
	9. Created a safe social environment for youth to participate	
	10. Included multiple activities to change each of the targeted risk and protective factors	
	11. Employed instructionally sound teaching methods that actively involved the participants, that helped participants personalize the information and that were designed to change each group of risk and protective factors	
	12. Employed activities, instructional methods and behavioral messages that were appropriate to the youths' culture, developmental age and sexual experience	
	13. Covered topics in a logical sequence	

* Kirby, D. B. (2007). *Emerging Answers 2007: Research Findings on Programs to Reduce Teen Pregnancy and Sexually Transmitted Diseases.* Washington, DC: National Campaign to Prevent Teen and Unwanted Pregnancy.

6. Intention to abstain from sexual activity, restrict sexual activity or decrease the number of sexual partners
7. Communication with parents or other adults about sexuality, condoms or contraception[1]

Similarly, those programs that effectively increased condom or contraceptive use sometimes focused on and improved the following factors (Kirby 2007):

1. Knowledge, including knowledge of sexual issues, pregnancy, HIV and other STDs (including methods of prevention)
2. Attitudes toward risky sexual behavior and protection
3. Attitudes toward 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

Both theory and numerous empirical studies have demonstrated that these factors, in turn, have an impact on adolescent sexual decision making and

[1] Communication with parents or other adults is not a cognitive sexual psychosocial factor. However, it is a factor that many programs addressed and improved and that in turn changed behavior.

behavior (Kirby and Lepore 2007). These factors are among the most important concepts in widely used effective psychosocial theories of health behavior change, such as social cognitive theory, theory of reasoned action, theory of planned behavior, and the information-motivation-behavioral skills model (Fishbein and Ajzen 1975; Ajzen 1985; Bandura 1986; Fisher and Fisher 1992).

In sum, there is considerable evidence that effective sex and STD/HIV education programs actually changed behavior by first having an impact on these factors, which, in turn, positively affected young people's sexual behavior.

Although there is evidence that all of these factors affect behavior, some of them affect each other and only indirectly affect behavior. For example, it is commonly believed that intentions to perform a behavior most directly affect that behavior. In turn, relevant attitudes, perceptions of norms and self-efficacy affect intentions. Further, other factors (e.g., knowledge) may affect attitudes, perceptions of norms and self-efficacy. Figure 1-1 provides an example of how these factors may be related.

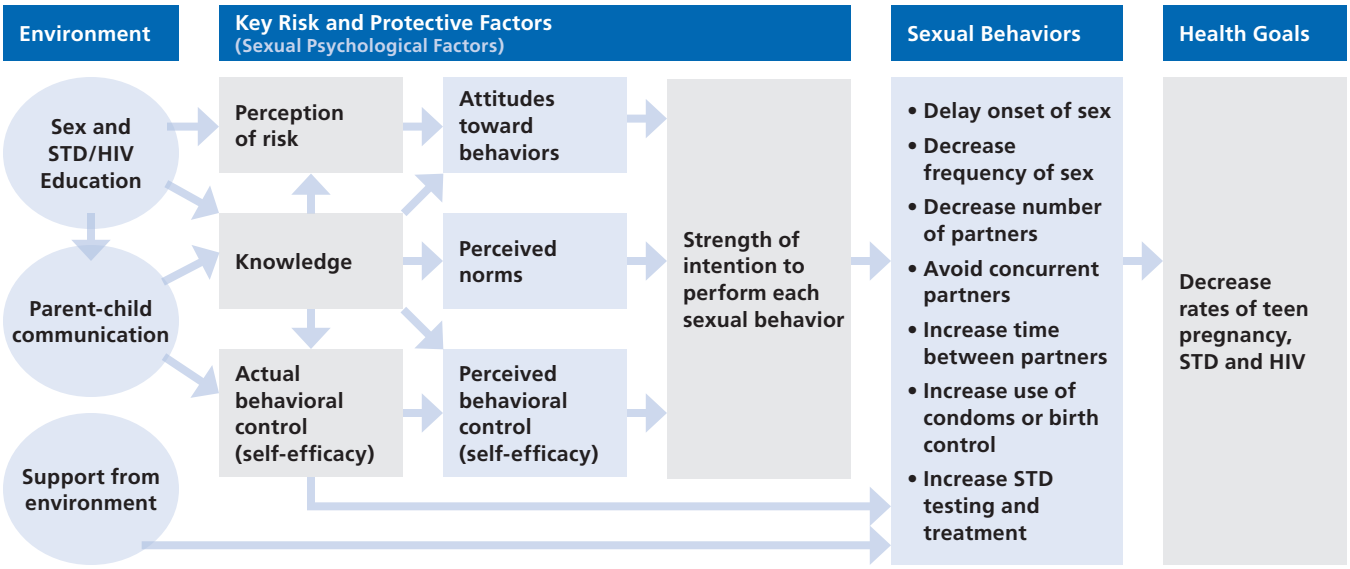
Finally, although intentions to perform a behavior tend to be good predictors of whether or not the behavior is then performed, many things can disrupt (or moderate) the intention–behavior link. For example, environmental constraints or habits may affect whether intentions translate into behavior, so even intentions do not completely determine behavior.

Organization of This Book

The organization of this book follows the framework of logic models, which are described in greater detail in Chapter 2.

The primary health goals addressed in this book are to reduce unintended pregnancy and STDs. To reduce unintended pregnancy, young people need to delay sex or reduce the frequency of sex and increase the consistent and correct use of effective contraception. To reduce STD transmission, young people need to delay sexual activity, have sex less frequently, have fewer sexual partners, avoid concurrent sexual partners, increase condom use, increase the time period between sexual partners, be tested (and treated if necessary) for STDs and be vaccinated against human papilloma virus (HPV) and hepatitis B (Kirby 2007). Logic models for some of these behaviors are presented in the next chapter.

Figure 1-1 Possible Logic Model of Psychosocial Factors Affecting Behavior



Each of the following chapters focuses on an important risk and protective factor that affects those behaviors and can be changed by curriculum-based sex and STD/HIV education programs. Within each chapter, we:

- Identify a risk or protective factor that has an impact on these sexual risk behaviors
- Identify important theories that address each factor
- Summarize the evidence for the impact of that factor on the sexual behaviors[2]
- Summarize the evidence for the ability of programs to change the factor[3]
- Specify important instructional principles for effectively changing each factor
- Summarize examples of activities that have been used in curricula that effectively changed each factor
- Provide references to more detailed descriptions of those activities in effective curricula
- Provide a sampling of items used in studies to measure each factor (These items simply provide more detail about some of the concepts in each factor.)

Consequently, this book can be used to help develop completely new curricula, to add new activities to existing curricula that may not have sufficiently powerful activities to change particular factors, to improve the effectiveness of existing activities already in curricula and to critically review curricula activities for possible adoption. When adapting curricula that have strong evidence of impact, all changes should be consistent with guidelines for adapting those curricula (Rolleri, Fuller et al., unpublished).

Reading this book from cover to cover may be challenging. Thus, readers may wish to:

1. Read the first two chapters to obtain an overview of the book, logic models and behavioral objectives.
2. Read and apply those chapters addressing the specific factors that are in their own logic models.
3. Read the final chapter and apply the principles to their curricula.

2 In each chapter, the evidence assessing the relationship between the factor discussed in that chapter and sexual behavior is based on tabulations of the studies summarized in *Sexual risk and protective factors: Factors affecting teen sexual behavior, pregnancy, childbearing and sexually transmitted disease: Which are important? Which can you change?* (Kirby and Lepore 2007).

3 In each chapter, the evidence assessing the impact of curriculum-based programs on the factor discussed in the chapter is based largely on tables in *Emerging answers 2007: Research findings on programs to reduce teen pregnancy and sexually transmitted diseases* (Kirby 2007).

2 Creating a Logic Model and Learning Objectives

Keys to Creating a Logic Model

Complete the following four steps in order: Identify 1) the health goal(s) to be achieved; 2) the behaviors that directly affect that health goal(s); 3) the factors that affect each of those behaviors and that can be modified; and 4) the intervention components or activities that will improve those factors.

Keys to Creating Learning Objectives

Identify the precise behaviors to be implemented to avoid unprotected sexual activity and the particular knowledge, facts, beliefs, attitudes, peer norms and skills needed to have the intentions and ability to conduct those behaviors.

Background

Most, if not all, programs that have led to sexual behavior change have either explicitly or implicitly developed logic models. Their development is one of the 17 characteristics of effective curriculum-based sex education programs. Creating a detailed logic model is a very important first step in the process of creating a new program or improving or adapting an existing program. It provides the framework or roadmap specifying which activities affect which factors that, in turn, change behavior and achieve health goals.

A foundation of this book is a particular logic model that assumes that specific curriculum activities can affect selected sexual psychosocial factors that, in turn, reduce sexual risk behavior and potentially reduce unintended pregnancy and STDs (see Figure 2-1). This chapter briefly describes a process for creating logic models and provides a very detailed example of one logic model that is consistent with the subsequent chapters in this book and the many principles therein.

This chapter continues with a discussion of learning objectives, because a critical step in developing curriculum-based intervention activities is creating learning objectives to focus the instruction and ensure it will produce learning that is related to the behavioral goals specified in the logic model.

Types of Logic Models

Although many logic models include these four components, they sometimes use different words to describe them. Some may use the concepts above, while others may refer to "interventions,"

Figure 2-1 Basic Elements in a Logic Model That Forms the Basis of This Book

"determinants," "behaviors," and "health goals," or "activities," "short-term objectives" and "long-term outcomes," or "processes," "outcomes," and "impacts," respectively.

There are also other variations among logic models. Some include only these four minimum components, while others may provide more information on inputs or specify far more complex causal models, with some determinants of behavior affecting other determinants or with reciprocal causality acknowledged (e.g., determinants affecting behaviors and *vice versa*).

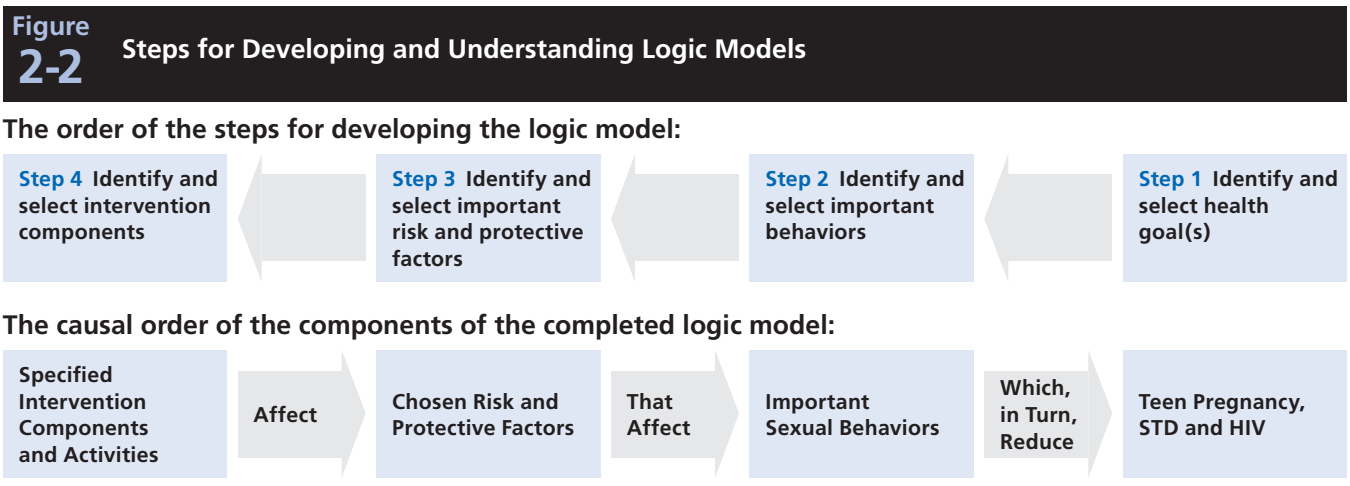
Steps for Developing a Logic Model

Creating a logic model consistent with the goals of this book involves completing at least four basic steps:

1. Identify possible health goals and select the health goal(s) to be achieved. For the purposes of this book, those health goals are reducing unintended pregnancy and STDs among young people. These are listed on the far right side of the logic model (see Figure 2-1).
2. Identify potentially important behaviors that affect the selected health goal and then select the particular behaviors to be targeted. Key behaviors for sexual risk-taking are specified in Chapter 1. Specifically, to reduce unwanted pregnancy, young people need to delay sex or reduce the frequency of sex and increase consistent and correct use of effective contraception. To reduce STD transmission, young people need to delay sex, have sex less frequently, have fewer sexual partners, avoid concurrent sexual partners, increase condom use, increase the time period between sexual partners, be tested (and treated if necessary) for STDs and be vaccinated against HPV and hepatitis B.
3. Identify potentially important risk and protective factors of the selected behaviors and select those factors that can be changed and are to be targeted. This book highlights selected sexual psychosocial factors affecting sexual behavior and parent-child communication about sexual behavior. Multiple studies demonstrate that these factors can be changed by curriculum-based activities and can, in turn, affect sexual risk behavior.
4. Identify or create possible interventions or activities that have sufficient strength to improve each selected risk and protective factor and select those that are most effective. The following chapters provide examples of many effective activities and describe theory-based instructional practices for increasing their effectiveness.

These four steps are summarized in Figure 2-2. Box 2-1 provides additional tips for developing logic models, and Box 2-2 provides criteria for

Figure 2-2 Steps for Developing and Understanding Logic Models



assessing logic models. Logic models are described much more fully in Kirby (2004). An on-line course on these models also is available free of charge at: http://www.etr.org/recapp/documents/logicmodelcourse/index.htm. *Intervention Mapping* (Bartholomew, Parcel et al. 2006) describes more comprehensive approaches that involve logic models and that are effective.

A Detailed Example of a Logic Model

Figure 2-3 provides a very detailed example of a logic model that incorporates activities from curricula that have been effective at improving sexual psychosocial factors and behavior. The figure illustrates how to read a logic model and how a given curriculum would reduce sexual risk behaviors. It also provides a frame of reference for the remainder of this book. Indeed, Chapters 3 to 9 focus on the risk and protective factors that are in this logic

Box 2-1 Tips for Developing Logic Models

- **Choose your target.** Remember that logic models are graphic depictions that show clearly and concisely the causal steps through which specific interventions can affect behavior and thereby achieve a health goal. They can be applied to any health goal or to any goal that is affected by the behavior of individuals or the policies and programs of organizations.
- **Be comprehensive.** Consider all reasonable possibilities at each stage, all health goals of interest, all behaviors affecting a selected health goal, all factors affecting each behavior, and all activities or interventions that may affect each factor.
- **Be thorough.** Consider both positive and negative behaviors and both risk and protective factors that affect those behaviors.
- **Be strategic.** Focus on the goals, behaviors, risk and protective factors, and intervention strategies that are most important and that you can change; the most important health goal in the community that your organization wishes to achieve (and can), the most important behaviors that have the greatest impact on that health goal and that you can change, the most important factors that affect each behavior and that you can change, and the activities or interventions that most strongly affect each factor and that you can implement.
- **Be realistic.** Assess the impact of each activity or intervention on each factor, the impact of each factor on each behavior and the impact of each behavior on the health goal. Select only those that have the greatest impact.
- **Consider the evidence.** Review research when assessing which activities, risk and protective factors and behaviors are most important in addressing a health goal.
- **Be very specific.** For example, when choosing a health goal, specify the particular health outcome and the population to be targeted (e.g., a particular age group in a particular geographic area). When choosing behaviors, identify the specific behavior, not a broader behavior. (For example, do not specify "reducing unprotected sex" as a behavior. Instead, break it down into abstaining, using condoms, having mutually monogamous partners, using contraception, etc.) When choosing activities, describe them sufficiently so that readers can understand how they will affect their targeted factors.
- **Call for back-up.** Identify multiple activities to change each important risk or protective factor. (Create a matrix to help with this as described in Chapter 10.)
- **Know your target.** Complete all of these activities with a thorough knowledge of the particular population of young people, their community, their culture and their characteristics always in mind.
- **Widen your perspective.** Involve multiple people in the development of your logic model. Include people with different areas of expertise, such as knowledge about adolescent sexual behavior, psychosocial theories of behavior change, factors affecting sexual behavior, effective instructional strategies, youth culture, community values and research on sex education programs.
- **Use the logic model as a tool.** Use your logic model not only to develop an effective program, but to explain it to other stakeholders and to train staff who implement it.
- **Monitor progress.** Over time, conduct evaluations to assess your logic model and program, using the data to update and improve them.

model, provide evidence regarding how these risk and protective factors affect behavior, provide evidence that curriculum activities can improve them and describe the theory behind these psychosocial factors, as well as the instructional principles for shaping curriculum activities to improve them.

Learning Objectives: Becoming More Specific

After creating a logic model, the next important step in developing curriculum-based intervention activities is creating learning objectives. The elements in learning objectives are typically more precise than those in logic models and therefore further focus the instruction. If prepared properly, these objectives should convey what students will be able to do as a result of the lesson(s).

Box 2-2 Criteria for Assessing Logic Models and Their Development[4]

Criteria for Assessing the Model

Overall

- Does the model make sense? Do the goals, behaviors, risk and protective factors and intervention approaches reflect the understanding of the group?
- Are all items in the correct columns?
- Are all the relationships causal (as opposed to correlational)?

Goals

- Is the stated goal a priority?
- Is it well defined?
- Are the populations defined well enough (e.g., by age, sex, income level, location)?
- Does your organization have the capacity to address this goal?

Behaviors

- Are all the important and relevant behaviors that have a marked impact upon the health goal identified and selected? If not, are there good reasons provided for excluding some of the behaviors?
- Are the behaviors defined precisely?
- Do they directly and strongly affect the health goal?
- Are they measurable?

Risk and Protective Factors

- Were risk and protective factors in different domains identified (e.g., media, community, school, family, peer, and individual)? If not, were good reasons provided for excluding some of the factors?
- Are both risk and protective factors included?
- Do selected factors have a strong causal impact upon one or more behaviors?
- Can the selected factors be modified markedly by potential interventions?
- Are all factors that affect behavior and can be changed by feasible interventions included?

Program Components

- Can the activities and components in combination have a marked impact upon each of the selected factors? Do multiple activities or components address each factor?
- Is there strong evidence from research or elsewhere that the intervention strategies can improve the factors?
- Is it feasible to implement each of the intervention components? Are the necessary organizational requirements in place? Do staff have the needed skills? Are there sufficient financial resources? Is there necessary political or policy support? Is there sufficient community support?
- Given the purposes of the model, were the intervention components described in sufficient detail?

Criteria for Assessing the Development of the Model

- Were people with different views involved in the development of the model? Were youth involved in the development of the model? Were people with program experience involved? Were researchers involved?
- Is a process described for actually using the model once it is developed (e.g., using it to create a curriculum, train educators, inform stakeholders or facilitate grant writing)?
- Is a process described for periodically assessing and updating the model?

[4] These are criteria for assessing logic models in general, not only logic models specifically designed for curriculum-based programs.

For example, not having sex at a particular time or with a particular person may involve: deciding not to have sex, communicating personal limits about sex, suggesting alternative activities to sex, avoiding situations that might lead to sex and refusing to have sex. Similarly, using condoms may involve: making the decision to use condoms, buying or obtaining condoms, carrying condoms, negotiating their use and using condoms.

Associated with each of these more specific behaviors are multiple learning objectives that will affect students' intention and ability to perform these behaviors. Because there are learning objectives associated with each of the sexual psychosocial factors discussed in the following chapters, examples of learning objectives are presented in a matrix with the specific behaviors down the left-hand side and the psychosexual factors across the top. (See Tables 2-2 to 2-6.)

Taxonomies of learning (Bloom, Englehatt et al. 1956; Krathwohl, Bloom et al. 1964; Anderson and Krathwohl 2001) are among the most well-used tools to help shape objectives and reflect a continuum of learning ranging from lower levels (e.g., remembering key facts) to actually synthesizing and constructing new learning. There are taxonomies for the cognitive, affective, and psychomotor domains, descriptions of which are available on the Internet.

These taxonomies also have lists of "learning verbs" associated with each level to help developers shape objectives. (See examples for the cognitive processing domain in Table 2-1.) Ideally, students should be challenged to reach higher levels of learning (e.g., applying, analyzing, evaluating or creating) rather than just recalling information. Indeed, research has shown that students who work with content at higher levels of a taxonomy retain more than those working only at lower levels (Garavalia, Hummel et al. 1999). For example, students who learn strategies

Table 2-1 Bloom's Revised Taxonomy of Learning—Cognitive Processing Domain*

	Revised Taxonomy Level	Brief Decription of Level*	Examples of Learning Verbs	Examples of Behavioral Objectives
Lower Level	Remember	Recall facts or bits of information	List, memorize, identify, cite, recall	Students will be able to list 5 facts about HIV transmission.
	Understand	Construct meaning from the information remembered	Explain, describe, illustrate, clarify, restate, discuss	Students will be able to describe how condoms protect against HIV.
	Apply	Use the information in a given situation	Apply, use, demonstrate, show, practice	Students will be able to use refusal skills correctly when faced with pressure to have sex.
	Analyze	Break material into smaller parts and see how the parts relate to each other and the bigger picture	Analyze, examine, compare, contrast, debate, appraise	Students will be able to compare and contrast the pros and cons of having sex.
	Evaluate	Make judgments based on the information	Evaluate, judge, decide, appraise, recommend	Students will be able to decide on the most effective form of protection (abstinence and contraception) for 3 pairs of students in relationships.
Higher Level	Create	Synthesize the information and put it together to apply it in a new way	Create, design, construct, present, compose, hypothesize, generate	Students will be able to compose a response to an anonymous caller seeking advice on what to do about some STD symptoms he/she is experiencing.

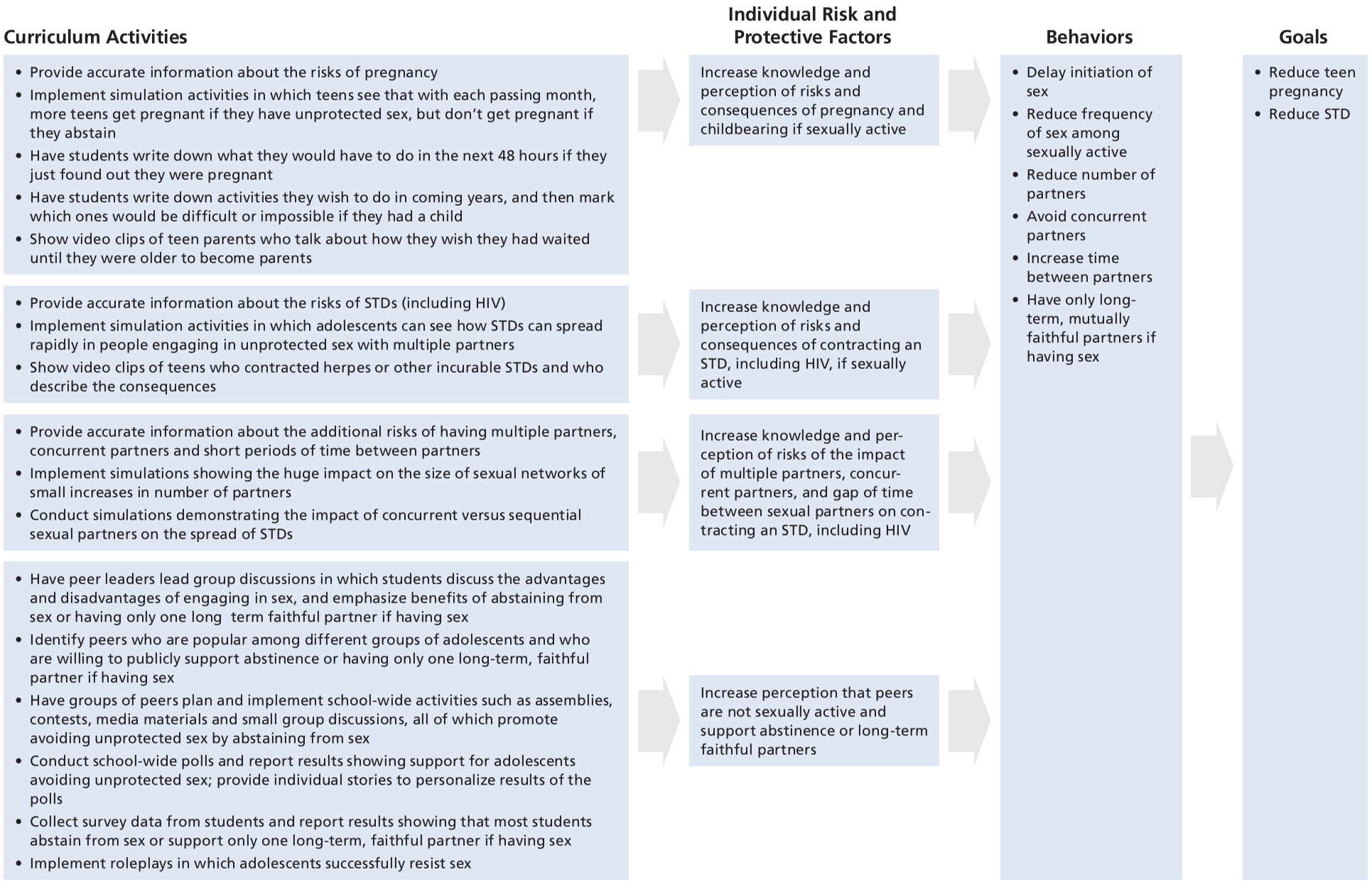
* *Note:* Details regarding the revised taxonomy can be found in Anderson and Krathwohl 2001.

to avoid unwanted sex and then synthesize them and apply them to other situations will remember and use them more than those students who simply reiterate the strategies.

Once the learning objectives have been established, it is essential to ensure the planned activities and the objectives are in alignment. If an activity is included in the curriculum but really does not support students in meeting the stated objectives, then it should be modified or replaced. If an existing program does not have clearly stated objectives, they should be created.

Tables 2-2 to 2-6 include examples of behavioral objectives for the key behaviors specified in the logic model in Figure 2-3. These tables are not exhaustive, but provide a range of examples of the types of objectives that could be included in a curriculum to address abstinence, sexual partners, contraceptive use, condom use, STD testing and treatment, and vaccinations.

Figure 2-3 An Example of a Logic Model to Reduce Pregnancy and Sexually Transmitted Disease by Implementing a Sexuality Education Curriculum



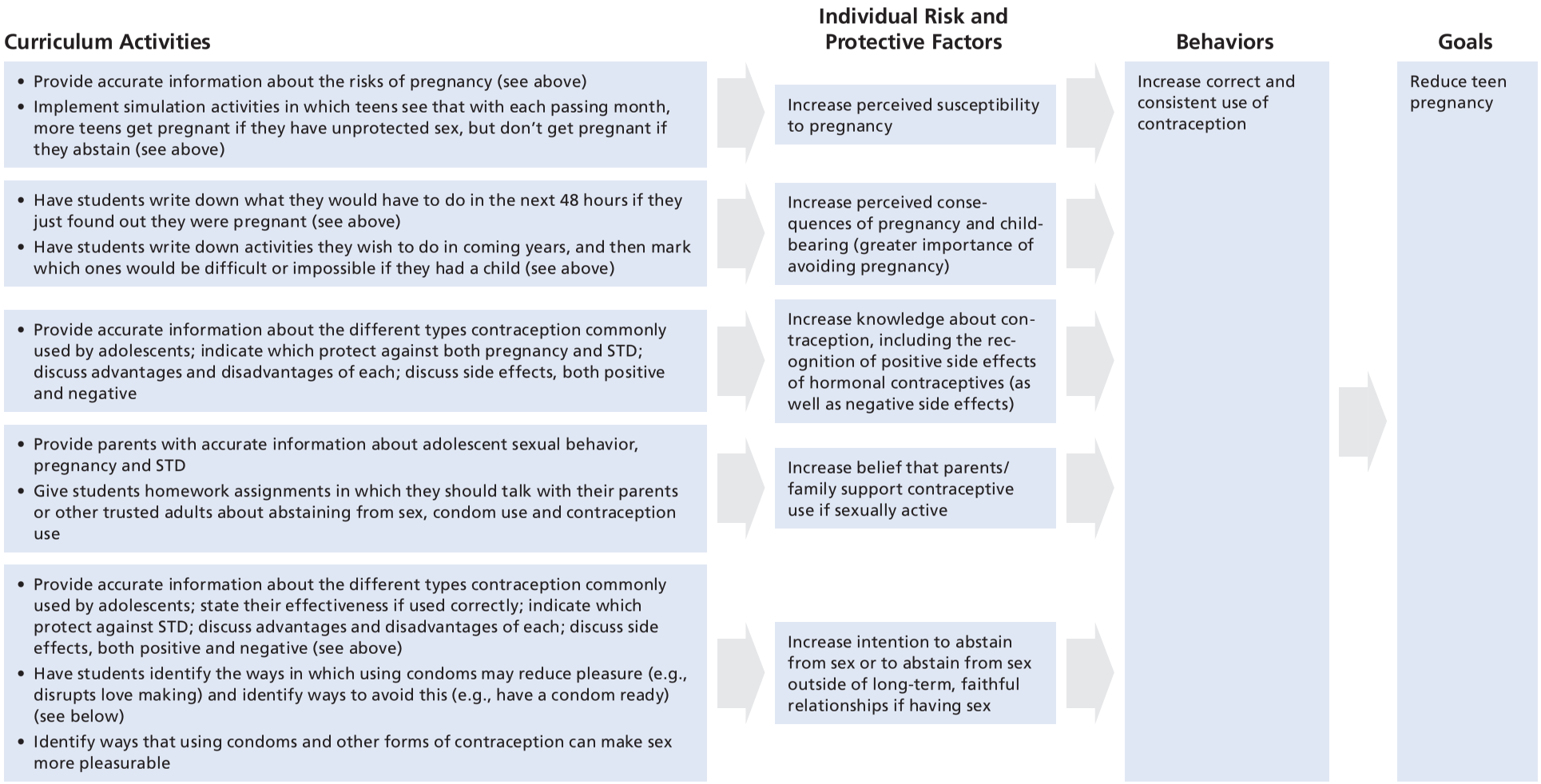
(Continued)

Figure 2-3 An Example of a Logic Model to Reduce Pregnancy and Sexually Transmitted Disease by Implementing a Sexuality Education Curriculum *(Continued)*

Curriculum Activities	Individual Risk and Protective Factors	Behaviors	Goals
• Lead group discussions in which students discuss the advantages and disadvantages of engaging in sex; emphasize that abstinence is the only 100% effective method of avoiding pregnancy and STD, and may reduce some emotional negative outcomes; and emphasize that some advantages of sex are short-term while some disadvantages can be long-term • Discuss methods of showing you care about someone without engaging in sex	Decrease permissive attitudes about sex and increase attitudes favoring abstinence or long-term, faithful relationships if having sex	• Delay initiation of sex • Reduce frequency of sex among sexually active • Reduce number of partners • Avoid concurrent partners • Increase time between partners • Have only long-term, mutually faithful partners if having sex	• Reduce teen pregnancy • Reduce STD
• Create materials for parents to help them explore, understand, and express their values about sexuality, love and relationships • Assign homework activities in which students ask their parents several questions about their values about sexuality, love and relationships	Increase belief that parents/family have conservative values about sex and support abstinence or long-term, faithful relationships if having sex		
• Through class discussions and help from peer leaders, identify and describe the types of situations which might lead to undesired sex, and identify multiple strategies for avoiding each situation • Provide demonstration and practice of skills to refrain from sex when pressured to have sex • Have teachers or peer leaders demonstrate effective strategies for saying no to undesired sex through scripted roleplays • Have students divide into small groups and practice roleplays by reading scripts • Repeat roleplays with increasingly challenging situations and less scripting, allowing students to use their own skills in more difficult contexts	Increase self-efficacy and skills to abstain from undesired or unprotected sex		
• Have students think clearly about what is the right choice for them in terms of sex and number of partners • Have them think about what circumstances or events might challenge their choice to abstain from sex or limit sex to one faithful partner • Have them create a personal plan to avoid those circumstances or events or overcome them	Increase intention to abstain from sex or to abstain from sex outside of long-term, faithful relationships if having sex		

(Continued)

Figure 2-3 An Example of a Logic Model to Reduce Pregnancy and Sexually Transmitted Disease by Implementing a Sexuality Education Curriculum *(Continued)*



(Continued)

Figure 2-3 An Example of a Logic Model to Reduce Pregnancy and Sexually Transmitted Disease by Implementing a Sexuality Education Curriculum *(Continued)*

(Continued)

Figure 2-3 An Example of a Logic Model to Reduce Pregnancy and Sexually Transmitted Disease by Implementing a Sexuality Education Curriculum *(Continued)*

Curriculum Activities	Individual Risk and Protective Factors	Behaviors	Goals
• Provide accurate information about the risks of STDs (including HIV) (see above) • Implement simulation activities in which adolescents can see how STDs can spread rapidly in people engaging in unprotected sex with multiple partners (see above) • Have people who are HIV positive talk about the impact that HIV has had upon their lives	Increase knowledge and perception of risks and consequences of contracting an STD (including HIV) if engaging in sex without condoms	Increase correct and consistent use of condoms	Reduce STD
• Provide accurate information on the effectiveness of condoms in preventing pregnancy and STDs, if used consistently and correctly	Increase knowledge of effectiveness of condoms in preventing pregnancy and STD		
• Brainstorm ways to have condoms available and ready when needed • Brainstorm ways to make condom use more sensual rather than less sensual • Provide accurate information on how different types of condoms (correct size, lubricated, etc.) can both reduce breakage and slippage and increase pleasure	Improve attitudes about condom use: Decrease attitude that condoms are a hassle, interrupt the mood, reduce pleasure, indicate a lack of trust, etc.		
• Provide parents with accurate information about adolescent sexual behavior, pregnancy, STDs, and the effectiveness of condoms • Give students homework assignments in which they talk with their parents or other trusted adults about abstaining from sex and condom use	Increase communication with parents about condom use and support for use if sexually active		
• Identify peers who are popular among different groups of adolescents and who are willing to publicly support a message about avoiding unprotected sex • Have groups of peers plan and implement school-wide activities such as assemblies, contests, small media materials and small group discussions, all of which promote avoiding unprotected sex by abstaining from sex and using condoms if having sex • Conduct school-wide polls and report results showing support for adolescents avoiding unprotected sex and using condoms if having sex; provide individual stories to personalize results of the polls • Collect survey data from students and report results showing that most students abstain from sex or use condoms • Implement plays in which adolescents successfully resist sex or always use condoms	Increase perception that peers support the use of condoms if sexually active		
• Have groups of students go to different places where condoms are available and assess how easily and comfortably teens could obtain condoms there • Have students go to one or more places where condoms are available and assess the types of condoms available and their cost	Increase self-efficacy to obtain condoms		

(Continued)

Figure 2-3 An Example of a Logic Model to Reduce Pregnancy and Sexually Transmitted Disease by Implementing a Sexuality Education Curriculum *(Continued)*

Curriculum Activities	Individual Risk and Protective Factors	Behaviors	Goals
• Have teachers or peer leaders demonstrate effective strategies for refusing to engage in unprotected sex through scripted roleplays and have students practice roleplays • Repeat roleplays in which students insist upon the use of condoms	Increase self-efficacy to insist on using condoms	Increase correct and consistent use of condoms	Reduce STD
• Provide demonstration and practice in how to use condoms properly	Increase self-efficacy to use condoms correctly		
• Have students think clearly about what is the right choice for them in terms of sex, condom or other contraceptive use • Have them identify what circumstances or events might challenge that choice • Have them create a plan to avoid those circumstances or events or overcome them • If their choice is to use condoms, have them create a specific plan to obtain and use condoms	Increase intentions to use condoms		
• Provide research data on the high prevalence of HPV among young women • Describe how some varieties of HPV lead to cervical warts and some varieties lead to cervical cancer and death • Provide research data on the relative number of deaths due to cervical cancer and AIDS among women in the last 40 years • Provide research data on the prevalence of Hepatitis B and its consequences	Increase perception of risks of HPV and Hepatitis B	Increase vaccinations for HPV and Hepatitis B	Reduce STD
• Provide research data on the effectiveness of HPV and Hepatitis B vaccines • Provide information on where to obtain vaccinations and the costs of the vaccines to young people • Have a speaker from a clinic talk about the vaccines and procedures for obtaining it	Increase knowledge of effectiveness of HPV and Hepatitis B vaccines and places to obtain vaccinations		
• Provide research data showing the increases in the percentages of young women who are being vaccinated for HPV • Provide role model stories promoting the benefits of vaccination and suggesting its wider use • Collect survey data showing that classroom peers would like to avoid HPV and Hepatitis B and support vaccination	Increase belief that peers are being vaccinated for HPV or support vaccination		
• Send information hope to parents with factual information about HPV, cervical cancer, and the HPV vaccine • Include as part of a homework assignment to talk with parents about being vaccinated for HPV if female	Increase communication with parents about being vaccinated for HPV		

(Continued)

Figure 2-3 An Example of a Logic Model to Reduce Pregnancy and Sexually Transmitted Disease by Implementing a Sexuality Education Curriculum *(Continued)*

Table 2-2 Learning Objectives to Reduce Sexual Activity: Delaying Initiation of Sex, Reducing Frequency of Sex Among Sexually Active, Reducing Number of Partners, Avoiding Concurrent Partners, Increasing Time Between Partners and Having Only Long-Term, Mutually Faithful Partners, if Having Sex *

Specific Behaviors Students will be able to:	Knowledge and Perceptions of Risk Students will be able to:	Attitudes, Values and Beliefs Students will be able to:	Perceptions of Peer Norms Students will be able to:	Skills and Self-efficacy Students will be able to:	Intentions Students will be able to:	Parent-Child Communication Students will be able to:
Decide to not have sex, either at all at that point in their lives or unless in a long-term, mutually monogamous caring relationship (LTMMCR)	• Explain the function of the male and female reproductive systems and how they work. • Characterize different types of sex. • Assess the risk of pregnancy or STD if having unprotected sex. • Evaluate the consequences of unintended teen pregnancy and childbearing. • Predict how (or reconstruct how) unintended pregnancy and childbearing may impact their lives. • Assess the risk of STD if having unprotected sex. • Evaluate the symptoms and consequences of different STDs, including incurable STDs such as herpes and HIV. • Assess the impact of having an incurable STD on their lives. • Analyze the impact of small increases in numbers of sexual partners on the increased size of sexual networks and risk of STD transmission. • Compare and contrast the risk of having concurrent sexual partners instead of sequential sexual partners. • Conclude that the only 100% effective way of avoiding STDs, including HIV, or getting pregnant is to not have sex. • Appraise how LTMMCRs can reduce STD risk. • Define characteristics of a LTMMCR. • Assess the emotional and social consequences of having sex or casual sex. • Evaluate the most important reasons for not having sex or for having sex only within a LTMMCR. • Assess the pressures/influences (social, peer, partner, media) to have and not have sex. • Conclude that people should always have the choice to not have sex. • Generate ways to show love and affection without having sex, and choose their favorites.	• Internalize the belief that it's important to respect oneself and that they are worthy of respect. • Internalize the belief that not having sex or having sex within LTMMCR is consistent with respecting oneself. • Value a decision to not have sex or to have sex within LTMMCR. • Believe that making the decision to not have sex will reduce risk of getting STDs (including HIV) or becoming pregnant and having sex only within a LTMMCR will reduce risk of STD/HIV. • View taking responsibility for sexual behavior favorably. • Value not getting pregnant or getting someone pregnant, or acquiring an STD/HIV.	• Internalize the belief that most young people their age have not had sex (or did not have sex last month) if true. • Internalize the belief that most young people their age support the decision to not have sex. • Internalize the belief that friends approve and respect their decision to not have sex. • Identify peers who will support their decision to not have sex. • Internalize the belief that most young people their age support the decision to have sex only within a LTMMCR, if having sex. • Internalize the belief that friends approve and respect their decision to only have sex within LTMMCR, if having sex.	• Make a decision to not have sex with confidence.	• Commit to not having sex at this time in their lives or to have sex only within a LTMMCR.	• Communicate with parents and other adults and evaluate how parents and other adults feel about younger teens having sex. • Identify parents and other adults who will support their decision to not have sex. • Communicate with parents and other adults and internalize the belief that most parents and other adults feel it's important for people to have sex only within a LTMMCR, if they do have sex.

(Continued)

Table 2-2 Learning Objectives to Reduce Sexual Activity *(Continued)*

Specific Behaviors Students will be able to:	Knowledge and Perceptions of Risk Students will be able to:	Attitudes, Values and Beliefs Students will be able to:	Perceptions of Peer Norms Students will be able to:	Skills and Self-efficacy Students will be able to:	Intentions Students will be able to:	Parent-Child Communication Students will be able to:
Communicate their personal limits regarding sex and intimate behaviors.	• Describe what a personal limit is. • Generate ways to communicate personal limits to friends/partners. • Select and/or state their personal limits regarding sex and intimate behaviors. • Make a case for why it's important to communicate personal limits to friends/partners.	• View favorably the benefits of communicating personal limit to not have sex. • Demonstrate favorable attitudes toward talking about sexual limits. • Hold the belief that communicating personal intentions and limits will decrease risk of pregnancy and HIV/STD. • Hold the belief that communicating personal limits will lead to a better relationship with partner.	• Acknowledge that teens communicate their personal limits to friends. • Believe that teens communicate their personal limits regarding sex to partners. • Recognize that people may have different personal limits regarding different behaviors. • Internalize the belief that friends approve of them communicating personal limits. • Internalize the belief that partners approve of them communicating their limits. • Identify friends who can help them stick with and communicate their personal limits.	• Demonstrate the ability to communicate their personal limits to friends or partners. • Communicate their limits to friends or partners with confidence.	• Form intentions to share personal limits with friends/partners.	• Identify parents and other adults who can help them establish and communicate their personal intentions and limits. • Internalize the belief that parents want them to communicate their sexual limits to friends/partners.
Suggest alternative activities to sex with their partners.	• Generate alternate activities to having sex. • Propose different ways to suggest or bring up alternative activities. • Appraise which alternative activities are most viable for their use.	• Make a case for why a healthy relationship is not predicated on sexual activity. • See the value in suggesting alternative activities to sex as a way to strengthen interpersonal relationships.	• Summarize the beliefs of others regarding the use of alternate activities to sex. • Identify friends/ peers who will support alternate activities.	• Demonstrate ability to suggest or bring up an appropriate alternative activity to sex. • Recommend an alternative activity to sex with confidence.	• Plan to suggest alternative activities to sex with partners.	• Identify adults who will support alternate activities.
Avoid situations where they could have sex.	• Analyze situations (places, peers, times) that may make it hard to refuse sexual pressures. • Develop strategies for avoiding situations where they may face sexual pressures.	• Have desire to avoid situations that may make it hard to refuse or handle sexual pressures. • Believe that avoiding a high-risk situation will help them keep from having unwanted or unprotected sex.	• Form the belief that significant others approve and respect their decision to avoid situations that may make it hard to refuse sex. • Identify friends/peers who will support them in avoiding and/or identifying risky situations.	• Demonstrate how to identify signs and situations that may make it hard to resist or refuse sexual pressures. • Develop confidence in their ability to identify signs and situations that may make it hard to say no to sex.	• Plan to avoid situations that could lead to sex.	• Identify adults who will support them in identifying and avoiding risky situations.

(Continued)

Table 2-2 Learning Objectives to Reduce Sexual Activity *(Continued)*

Specific Behaviors Students will be able to:	Knowledge and Perceptions of Risk Students will be able to:	Attitudes, Values and Beliefs Students will be able to:	Perceptions of Peer Norms Students will be able to:	Skills and Self-efficacy Students will be able to:	Intentions Students will be able to:	Parent-Child Communication Students will be able to:
Avoid situations where they could have sex.	• Detect signs that let them know it may be hard to refuse/handle sexual pressures (feeling out of control, lack of adult supervision; feeling pressured to do something that does not feel right). • Develop strategies for handling signs that may make it difficult to refuse sexual pressures.			• Demonstrate how to avoid these situations (e.g., physically avoids situation; use refusal/negotiation skills).		
Refuse to have sex.	• Compose a list of signs and situations that may make it difficult to refuse sexual pressures. • Demonstrate characteristics of clear refusal skills (e.g., clear no, delay tactics, alternative actions).	• Value the importance of not having sex or having sex only in a LTMMCR. Hold the belief that using appropriate refusal skills will lead to successfully abstaining without jeopardizing interpersonal relationships. • Hold the belief that using refusal skills will reduce the risk of getting HIV, STD or becoming pregnant.	• Internalize the belief that most young people their age do not have sex or only have sex within a LTMMCR. • Believe that their close friends approve and respect their decision to not have sex or to have sex only within a LTMMCR.	• Demonstrate the ability to use different refusal skills in multiple situations. • Appraise the range of refusal strategies and identify those most comfortable and relevant for their use. • Use refusal skills in a variety of situations with a high degree of confidence.	• Form intentions to refuse sex.	• Identify adults who will support their use of refusal strategies to not have sex or to have sex only within a LTMMCR. • Talk about different approaches to refusing sexual pressures with parents or other adults. • Believe that most parents feel it's important to practice refusal strategies to not have sex.

* Tables 2-2 to 2-6 are based largely on matrices of learning objectives developed by Chris Markham, Susan Tortolero, Melissa F. Peskin and Ross Shegog for *It's Your Game: Keep It Real. An HIV/STI and Pregnancy Prevention Curriculum for Middle School Youth.* Copyright, 2006. The University of Texas Health Science Center, Houston, Texas.

Table 2-3 Learning Objectives to Increase Condom Use

Specific Behaviors Students will be able to:	Knowledge and Perceptions of Risk Students will be able to:	Attitudes, Values and Beliefs Students will be able to:	Perceptions of Peer Norms Students will be able to:	Skills and Self-efficacy Students will be able to:	Intentions Students will be able to:	Parent-Child Communication Students will be able to:
Make the decision to use condoms.	• Explain the function of the male and female reproductive systems and how they work. • Describe transmission and symptoms of HIV/STD. • Evaluate the consequences of not using a condom during sex. • Illustrate how using condoms when having sex will reduce the risk of getting STD/HIV or becoming pregnant. • Assess the short-term and long-term impact of having an STD (including an incurable STDs such as herpes or HIV). • Assess the short-term and long-term impact of becoming a parent at this time in their lives. • Evaluate the pressures/influences (peer, media, social) of using and not using a condom. • Explain the difference between unprotected and protected sex.	• Hold favorable views about taking responsibility for sexual behavior by making the decision to use condoms. • Value not getting pregnant or acquiring an STD/HIV. • Hold the opinion that deciding to use a condom is highly important for people who are having sex. • Conclude that the benefits of using condoms outweigh the risks of not using condoms.	• Internalize the belief that most young people their age use a condom, if they have sex. • Internalize the view that most young people their age believe it's important to use condoms, if having sex. • Summarize peer support for their decision to use condoms.	• Make a decision to use condoms, if having sex.	• Intend to use condoms, if having sex.	• Communicate with parents and/or other adults about their decision to use condoms, if having sex. • Identify parents or other people who support their decision to use condoms.
Buy or obtain a free condom.	• Summarize teens' legal rights to buy condoms. • List places to obtain or buy condoms. • Analyze the different types of condoms and the relative advantages/disadvantages of each type. • Generate ways to approach and ask for condoms. • Describe common barriers to obtaining and using condoms. • Propose ways to overcome or reduce each of these barriers.	• Express favorable attitudes toward buying or obtaining a condom, if having sex.	• Deduce that most sexually active teens buy or obtain free condoms. • Identify people who would assist them in buying or obtaining a free condom.	• Locate where to buy or obtain a free condom. • Approach and ask for condoms.	• Intend to buy or obtain a free condom, if having sex.	• Communicate with parents and/or other adults about obtaining condoms. • Identify parents or other people who support their decision to obtain condoms.
Carry condoms.	• Summarize different ways to carry and protect condoms when carrying them. • Identify times when a person may need to carry a condom.	• Express favorable attitudes towards carrying condoms. • View carrying a condom as a mature and responsible step to take.	• Conclude that sexually active teens carry condoms. • Internalize belief that most sexually active teens feel it's important to carry condoms.	• Demonstrate the ability to carry a condom.	• Intend to carry a condom, if having sex.	• Identify parents or other people who support their decision to carry a condom.

(Continued)

Table 2-3 Learning Objectives to Increase Condom Use *(Continued)*

Specific Behaviors Students will be able to:	Knowledge and Perceptions of Risk Students will be able to:	Attitudes, Values and Beliefs Students will be able to:	Perceptions of Peer Norms Students will be able to:	Skills and Self-efficacy Students will be able to:	Intentions Students will be able to:	Parent-Child Communication Students will be able to:
Effectively negotiate the use of condoms with every partner every time, if having sex.	• Demonstrate steps to negotiate condom use. • Plan ways to avoid having sex if negotiation of condom use fails.	• View taking responsibility for sexual behavior by negotiating condom use favorably. • Personalize the value of not having sex unless a condom is used.	• Conclude that sexually active teens negotiate the use of condoms. • Conclude that partner should be willing to use condoms.	• Negotiate condom use with a partner. • Refuse to have sex if condom negotiation fails.	• Intend to negotiate condom use every time they have sex.	
Establish intention to use a condom with partner.	• Demonstrate ways to communicate your intentions to use condoms to partner. • Generate personal decision to use condoms. • Present reasons why it's important to communicate decision to use condoms to your partner. • Analyze the benefits of communicating decisions to use condoms with a partner. • Demonstrate techniques for eliciting and hearing partners' intentions to use condoms.	• Value the importance of communicating intentions to use condoms to partners. • View talking about using condoms with partners favorably. • View willingness to use condoms as a way of respecting each other.	• Hold the belief that most sexually active teens communicate their intentions to use condoms with their partners.	• Communicate intentions to use condoms. • Use techniques for eliciting and hearing partners' intentions to use condoms.	• Intend to negotiate use of condoms with partner.	
Use a condom correctly.	• Compose a list of steps for proper condom use. • Evaluate the condition of a condom. • Demonstrate how to correctly apply a condom. • Demonstrate how to safely remove a condom.	• Compose a list of beliefs supporting condom use. • Internalize value of using condoms correctly.		• Use a condom correctly.	• Intend to use a condom correctly.	• Identify parents or other people who will support their decision to use condoms.
Maintain condom use with every partner every time they have sex.	• Analyze the importance of using condoms with regular partners as well as with casual partners.	• Express favorable attitudes about using condoms with all partners, including a regular partner.	• Internalize the fact that teens use condoms with regular and casual partners. • Conclude that most teens feel it's important to use condoms with regular and casual partners.	• Use a condom with regular partners as well as with casual partners.	• Intend to maintain condom use with every partner every time they have sex.	• Identify parents or other people who will support their decision to use condoms consistently over time.

Table 2-4 Learning Objectives to Increase Hormonal Contraceptive Use

Specific Behaviors Students will be able to:	Knowledge and Perceptions of Risk Students will be able to:	Attitudes, Values and Beliefs Students will be able to:	Perceptions of Peer Norms Students will be able to:	Skills and Self-efficacy Students will be able to:	Intentions Students will be able to:	Parent-Child Communication Students will be able to:
Make the decision to use hormonal contraception.	• Explain the function of the male and female reproductive systems and how they work. • Evaluate the consequences of not using contraception, if having sex. • Assess the short-term and long-term impact of becoming a parent at this time in their lives. • Evaluate the benefits of using contraception when having sex. • Evaluate the pressures/influences (peer, media, social) of using and not using contraception.	• View taking responsibility for sexual behavior by making the decision to use contraception favorably. • Value not getting pregnant or getting someone pregnant. • Hold the opinion that deciding to use contraception is highly important. • Hold favorable attitudes toward a decision to use hormonal contraception.	• Internalize the belief that most young people their age use contraception, if they have sex. • Summarize peer support for hormonal contraception use, if having sex. • Conclude that a majority of young people believe it's important to use contraception, if having sex. • Internalize the belief that significant others approve and respect their decision to use contraception, if having sex. • Identify peers who will support their decision to use contraception, if having sex.	• Make a decision to use contraception.	• Intend to use hormonal contraception, if having sex. • Commit to using contraception, if having sex.	• Communicate with parents and/or other adults about the decision to use contraception. • Identify parents or other people who could provide support in making a decision to use contraception, if having sex.
Choose an appropriate method of contraception.	• Assess the different types of contraception and the relative advantages/disadvantages of each type.			• Assess personal behaviors and concerns and select an appropriate method of contraception.		• Communicate with parents and/or other adults about choosing an appropriate method of contraception. • Identify parents or other people who could provide support in choosing a hormonal method of contraception, if having sex.
Obtain contraception.	• Summarize teens' legal rights regarding obtaining contraception. • Analyze places to obtain contraception. • Demonstrate how to approach and ask for contraception at a clinic.	• View obtaining contraception favorably, if having sex.	• Draw conclusions that most sexually active female teens obtain contraception. • Identify people who would assist them in obtaining contraception.	• Buy or obtain contraception. • Select a clinic/location to obtain contraception.	• Intend to obtain contraception, if having sex.	• Communicate with parents and/or other adults about obtaining contraception. • Identify parents or other people who support their decision to obtain contraception.

(Continued)

Table 2-4 Learning Objectives to Increase Hormonal Contraceptive Use *(Continued)*

Specific Behaviors Students will be able to:	Knowledge and Perceptions of Risk Students will be able to:	Attitudes, Values and Beliefs Students will be able to:	Perceptions of Peer Norms Students will be able to:	Skills and Self-efficacy Students will be able to:	Intentions Students will be able to:	Parent-Child Communication Students will be able to:
Keep contraceptive method readily available (if needed for chosen method).	• Plan how to keep contraception available, if needed for chosen method.	• Hold favorable attitudes toward carrying contraception. • View using contraception as a mature and responsible step to take.	• Draw conclusions about sexually active teens' use of contraception. • Internalize the belief that that most sexually active teens feel it's important to use contraception.		• Intend to keep contraception readily available, if needed.	• Communicate with parents and/or other adults about their plans to keep contraception available, if having sex, and, if parents are accepting.
Effectively negotiate the use of contraception with every partner.	• Describe steps to negotiate contraceptive use. • Plan ways to avoid having sex if negotiation of contraceptive use fails.	• Value the importance of taking responsibility for sexual behavior by negotiating contraception use, if having sex.	• Summarize peer support of negotiating contraceptive use. • Recognize that female partner may want to use hormonal contraception to prevent pregnancy (if male).	• Demonstrate the ability to negotiate contraceptive use with a partner with confidence. • Demonstrate the ability to refuse to have sex if negotiation of contraceptive use fails.	• Intend to effectively negotiate the use of contraception with every partner.	• Talk with parents or other adults about effective refusal strategies for avoiding unprotected sex.
Use contraception correctly and consistently.	• Describe how to correctly use most common methods of contraception. • Analyze barriers to correct and consistent use. • Propose solutions to address barriers to correct and consistent use of contraception. • Describe appropriate steps for refilling/replacing contraceptive method (e.g., state time for next medical appointment, describe how to refill prescription). • Analyze the benefits of using contraception correctly and consistently.	• Conclude that using contraception correctly and consistently will reduce the risk of pregnancy.	• Conclude that most youth support the correct and consistent use of contraception	• Prepare a plan for using contraception correctly and consistently.	• Intend to use contraception correctly and consistently, if having sex.	• Communicate with parents and/or other adults about plans to use contraception, if having sex. • Identify parents or other people who will support your decision to use contraception.

Table 2-5 Learning Objectives to Increase STD Vaccinations

Specific Behaviors Students will be able to:	Knowledge and Perceptions of Risk Students will be able to:	Attitudes, Values and Beliefs Students will be able to:	Perceptions of Peer Norms Students will be able to:	Skills and Self-efficacy Students will be able to:	Intentions Students will be able to:	Parent-Child Communication Students will be able to:
Make the decision to be vaccinated. (Especially for younger youth, this decision may be made partly or entirely by parents and their doctors.)	• Summarize key information about vaccinations to prevent STDs. • Discuss prevalence and consequences of these STDs. • Assess the pros and cons of getting vaccinated against these STDs. • Explain current recommendations about STD vaccinations for adolescents.	• Recognize the benefits of vaccinations. • Express benefits of taking responsibility for own health and health of partner(s).	• Form the belief that it's normal for teens who have sex to be vaccinated against these STDs. • Conclude that it's expected and responsible for teens who have sex to be vaccinated. • Identify individual(s) (e.g., peers/partner/parent/adult) who will discuss and support a decision to be vaccinated.	• Have confidence in decision to be vaccinated. • Initiate a conversation with parents about vaccinations to prevent STD. • Make a request to parents to be vaccinated.	• Intend to be vaccinated.	• Communicate with parents or guardians about current vaccination status and/or desire to be vaccinated. • Identify parents or other people who support their decision to be vaccinated, if having sex.
Make appointment to be vaccinated by healthcare provider. (Especially for younger youth, this may be arranged by parents and their doctors.)	• Assemble a list of places where vaccinations can be obtained.			• Call a healthcare provider and schedule an appointment, or ask parents to make appointment.	• Intend to be vaccinated.	• Communicate with parents about desire to be vaccinated.
Get vaccinated, if desired.	• Record time/date of appointment(s). • Plan how to get to the appointment(s). • For HPV, compose a schedule showing the number and timing of vaccinations (e.g., 2nd shot at 2 months, 3rd shot at 6 months). • For HPV, analyze how changes in the shot schedule may affect vaccine effectiveness.			• Create a reminder system to help keep their appointments.	• Intend to be vaccinated.	• Identify parents or other people who will help them keep their appointments (e.g., remind them, accompany them, provide transportation, and cover payment).

Table 2-6 Learning Objectives to Increase Pregnancy and STD Testing and Treatment

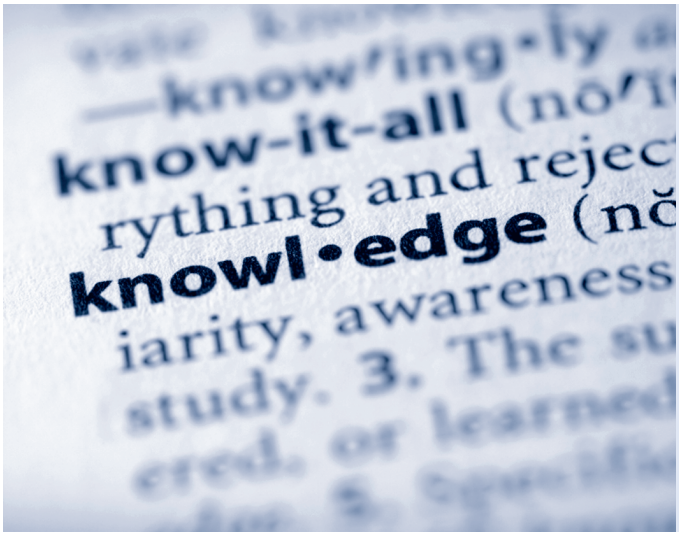
Specific Behaviors Students will be able to:	Knowledge and Perceptions of Risk Students will be able to:	Attitudes, Values and Beliefs Students will be able to:	Perceptions of Peer Norms Students will be able to:	Skills and Self-efficacy Students will be able to:	Intentions Students will be able to:	Parent-Child Communication Students will be able to:
Make the decision to get tested periodically if having sex.	• Analyze types of STDs and their primary modes of transmission. • Assess the prevalence of HIV/STD and pregnancy among teens. • Review that any sexually active teen can get HIV/STD or become pregnant/impregnate partner. • Generate reasons teens may want to get tested for HIV/STD and pregnancy if having sex. • State that current absence of symptoms does not ensure that a person is not infected or pregnant. • Explain that tests and results are confidential. • Evaluate the different types of STD and pregnancy tests available • Appraise the limitations of STD and pregnancy tests (e.g., timing regarding HIV and pregnancy detection, false negative/positive lack of counseling with home tests). • Appraise (or analyze) barriers to getting tested (cost, access, confidentiality, type of test, stigma, and embarrassment). • Formulate ways to overcome barriers.	• Value the benefits of knowing their health status. • Make a case for the benefits of getting tested (e.g., early treatment if a person tests positive, peace of mind, protecting self/others). • Value benefits of taking responsibility for own health and health of partner(s). • Recognize that individuals who are sexually active should be tested periodically.	• Recognize that peers believe it is expected and responsible for teens who have sex to get tested periodically. • Identify friends who will discuss and support their decision to get tested.	• Make a decision to get tested periodically if having sex. • Contact clinics to obtain information about testing services.	• Intend to be tested periodically if having sex.	• Identify individuals (e.g., parent/adult) who will discuss and support their decision to get tested.
Make and keep appointment to get tested by healthcare provider if having sex.	• List free or low-cost, teen-friendly testing sites with contact information. • Identify a place to record the time/date of appointment. • Plan how to get to the appointment.			• Make an appointment to get tested by a healthcare provider if having sex.	• Intend to make and keep appointment to be tested if having sex.	• Identify parents or other individuals who could accompany them when receiving results, if needed.
Obtain test results.	• Identify a place to record when test results will be available. • Identify method to obtain results (e.g., by phone, in person). • Assess the benefits of obtaining test results.	• Feels responsible about getting test results. • Value the importance of knowing status of test results.			• Intend to obtain test results.	• Identify individual(s) who will accompany them to get results • Identify individual(s) to help them cope with results.

(Continued)

Table 2-6 Learning Objectives to Increase Pregnancy and STD Testing and Treatment *(Continued)*

Specific Behaviors Students will be able to:	Knowledge and Perceptions of Risk Students will be able to:	Attitudes, Values and Beliefs Students will be able to:	Perceptions of Peer Norms Students will be able to:	Skills and Self-efficacy Students will be able to:	Intentions Students will be able to:	Parent-Child Communication Students will be able to:
Follow through with healthcare if necessary.	• Identify healthcare needs and appropriate providers. • Discuss consequences of not following through with healthcare follow-up. • Recognize that obtaining healthcare may help to reduce progression of symptoms (HIV/STD) or to have a healthier baby (pregnancy).	• Express the value of obtaining healthcare for HIV/STD or pregnancy.		• Follow through with healthcare instructions as directed.	• Intend to follow through with healthcare, if necessary.	• Identify parents or other individuals who could accompany them to get treatment, if needed. • Identify parents or other individual(s) to help cope with treatment, if needed.
Notify partner(s) of positive test results.	• Identify who needs to be informed of the results and the best way to inform them. • Generate barriers to notifying past and future partners. • Plan ways to overcome barriers. • Analyze the challenges in telling partners testing information.	• Value the importance of letting partners know test results (if positive). • Hold the belief that it is an individual's responsibility to make past and future partners aware of STD/HIV status. • View notifying partner(s) of test results as one's responsibility if having sex.		• Notify partner(s) of test results.	• Commit to notifying partner(s) of positive test results.	

3 Increasing Knowledge



Keys to Increasing Knowledge in Order to Change Behavior

Focus primarily on those facts, concepts and skills that are necessary to deliver a compelling message about behavior and to provide the foundation needed to change important attitudes, perceptions of norms and skills. Actively involve participants in learning and applying these facts, concepts and skills.

Background

Knowledge provides a foundation for human action; what people know does affect what they do. This is readily seen in daily life. It is also demonstrated by theory and related research. For example, both knowledge and skills are important components of the ability to perform a behavior ("behavioral capability"), a central concept in social cognitive theory (Bandura 1986). Similarly, knowledge is an important factor in other psychological theories such as the theory of planned behavior (Ajzen 1985). Both of these theories are commonly used as the theoretical basis for effective sex and STD/HIV education programs. Finally, knowledge plays an important role in the stages of change theory, particularly in the consciousness-raising process, which is used in some effective programs (Prochaska, Norcross et al. 1994).

Examples of the importance of knowledge in sexual behavior are numerous. Youth may not avoid situations that place them at risk of undesired, unplanned or unprotected sexual activity if they do not know ahead of time that those situations are risky. Youth will not use contraception consistently and correctly if they do not know it exists, how to obtain it, or how to use it properly. Knowing all of this information may be necessary for its proper use.

On the other hand, even though knowledge may provide a foundation, greater knowledge may not necessarily assure responsible behavior. For example, youth may know that drinking alcohol increases their chances of engaging in unintended sexual activity, but may drink alcohol anyway if they are at a party and all their friends are drinking. Youth may have considerable information about contraception, but still not consistently use contraception when engaging in sexual activity if their values, attitudes and perceptions of peer norms are not favorable to contraceptive use. Simply put, while knowledge provides a foundation for human action, knowledge alone is not sufficient.

Knowledge may affect behavior directly. For example, if sexually active young women know they are supposed to take a contraceptive pill every day, they are more likely to take that pill every day. Knowledge may also affect behavior indirectly by affecting values, attitudes, perception of norms and even perceptions of self-efficacy (Ajzen 1985; Bandura 1986). For example, if youth do not know their parents' values about sexual intercourse among teens, their own values about sexual intercourse may

be shaped more by their peers and the media and they may be more likely to engage in sexual activity at an earlier age. If youth do not know that condoms provide considerable protection against pregnancy and STDs, their attitudes towards condoms may be more negative and they may be less likely to use condoms during sexual activity. If youth know how to use condoms or other methods of contraception properly, they are more likely to feel confident using condoms or other methods of contraception and actually use them properly.

When applying these general concepts to sexual behavior, four questions should be asked:

1. Does teens' knowledge about different aspects of sexuality affect their sexual behavior?
2. Can we increase knowledge?
3. What are the most effective teaching methods for increasing knowledge?
4. What topic areas are most commonly covered in curricula that effectively change sexual behavior?

These questions are answered below.

Does teens' knowledge about different aspects of sexuality affect their sexual behavior?

Contrary to what many sexuality educators typically believe, knowledge about sexuality is *not* all that highly related to behavior (Tables 3-1 and 3-2). In particular, there is little evidence that knowledge about sexuality in general, knowledge about sexually transmitted disease (including HIV), or knowledge about condoms and contraception is significantly related to the initiation of sex (Table 3-1) (Kirby and Lepore 2007). There is very mixed evidence that knowledge about STD and HIV is related to condom use (Table 3-2). Finally, there is some evidence, but not always consistent evidence, that knowledge about condoms and contraception and their effectiveness is related to condom or contraceptive use.

What do these findings mean? How can these findings be so inconsistent with the very plausible belief that knowledge is needed to provide a foundation for behavior change?

There are at least three partial answers to these questions.

1. Most young people already know the basics about sexual behavior, condoms, contraception, pregnancy and STD, so greater knowledge may not markedly affect their behavior.
2. The knowledge tests used in these studies may not measure the particular facts that are most important in changing behavior.
3. Greater knowledge may improve attitudes, perceptions of peer norms or skills. These mediating factors in turn may affect behavior, but the statistical analyses may not always capture this *indirect* impact of knowledge on behavior.

Nevertheless, the conclusion from these studies is quite clear: if the goal of a program is to change behavior, it is important to focus on knowledge that most directly relates to values, attitudes, perceptions of peer norms and skills of a specific behavior, rather than general knowledge. For example, accurate knowledge about the risk of pregnancy and STDs and the effectiveness of prevention methods may improve attitudes about use of condoms and other forms of contraception, and, in turn, increase their use, but general knowledge about sexuality may not have an impact on sexual behavior.

This conclusion is consistent with other kinds of research. In particular, multiple studies have demonstrated that presenting a clear message about sexual behavior is an important characteristic of effective programs (Kirby, Laris et al. 2006). A common, clear message is:

> "Always avoid unprotected sexual activity. Abstinence is the safest choice. If you engage in sexual activity, always use protection against pregnancy and STDs."

One way that programs can make a compelling case for a particular behavioral message is by emphasizing all the facts and concepts that support that message.

In sum, the overall message from all of these studies is: Knowledge should be taught, but 1) it should be

Table 3-1 Number of Studies Reporting Effects of Knowledge on Sexual Behavior

	Later Initiation of Sex	No Significant Effects	Earlier Initiation of Sex
Knowledge about sexuality in general (N=1)	0	1	0
Greater knowledge about STD and HIV (N=3)	0	3	0
Greater knowledge about condoms and contraception (N=1)	0	0	1

Table 3-2 Number of Studies Reporting Effects of Knowledge on Condom or Contraceptive Use

	Greater Use of Condoms or Other Contraceptives	No Significant Effects	Reduced Use of Condoms or Other Contraceptives
Greater knowledge about STD and HIV (N=10)	3	4	3
Greater knowledge about condoms and contraception (N=7)	3	4	0
Knowledge about effectiveness of condoms in preventing STD (N=7)	2	5	0

Table 3-3 Number of Programs Having Effects on Different Knowledge Topics

Knowledge Topics	Had a Positive Effect	No Significant Effects	Had a Negative Effect
Overall knowledge of sexual issues (N=9)	7	2	0
Knowledge of pregnancy (N=5)	5	0	0
Knowledge of STD (N=11)	8	3	0
Knowledge of HIV (N=31)	28	3	0
Knowledge of abstinence (N=2)	2	0	0
Knowledge of methods of contraception (N=6)	4	2	0
Knowledge of condoms (N=8)	5	3	0
Knowledge of methods to prevent STD/HIV (N=7)	6	1	0
Knowledge of community or reproductive health services (N=2)	1	1	0
Knowledge of one's own sexual limits (N=3)	1	2	0

focused; 2) it should be very relevant to the particular values, attitudes, perceptions of peer norms and skills that are related to sexual behavior; and 3) it should strongly support the curriculum's prescriptive message.

Can we increase knowledge?

Studies overwhelmingly demonstrate that it is possible to increase knowledge. More than 30 studies measured the impact of programs on one or more knowledge topics. The overwhelming majority demonstrated that they increased knowledge in one or more areas (Kirby, Laris et al. 2006). Furthermore, of the 10 knowledge topics that were assessed most frequently, at least half the studies increased knowledge in 9 of them (Table 3-3). The tenth topic was not really a factual topic; it was an understanding of oneself—"knowledge of one's own sexual limits"—and thus quite different from the other topics.

What are effective teaching methods for increasing knowledge?

Many theories of education and effective instruction provide important principles for improving knowledge. For examples of types of activities that incorporate these principles, see Box 3-1.

1. **Learning is promoted when students are learning about topics relevant to their lives** (Jonassen 1999; Nelson 1999; Merrill 2002). Fortunately, sexual relationships (and sexuality more generally) are perceived by many youth as among the most important concerns in their lives and many view unintended sex, pregnancy and STD as potential

Box 3-1 Types of Activities to Increase Knowledge in Effective Pregnancy and STD/HIV Prevention Curricula

1. **Anonymous Question Box.** Anonymous question boxes provide youth with an opportunity to ask questions without having their names associated with the question. Anonymous question boxes may help to elicit more meaningful questions, especially when teaching about a sensitive topic. For example, a facilitator can ask youth to write questions on index cards (without names), and then place their questions in a basket. The facilitator reads the questions out loud to the group and provides answers or can elicit answers from the group. When students are given the opportunity to ask any question without having their names associated with it, they are likely to ask more questions. They also are more likely to ask questions that might otherwise be embarrassing for them to ask in the classroom. Educators also can occasionally add their own questions to emphasize or clarify particular points or to make sure that needed questions are asked.
2. **Brainstorming.** Brainstorming is a teaching method that is often used to generate ideas and lists. In brainstorming, all ideas are recorded. For example, a facilitator may ask a group of youth, "What are some reasons why young people have sex?" or "What are some reasons why young people decide not to have sex?" All answers to this question are accepted and recorded. This technique encourages broad participation and helps students consider all possibilities.
3. **Competitive Games.** Competitive games in curricula often mimic common television game shows (e.g., Jeopardy), sports games (AIDS Basketball) and contests (condom relays) in which teams win by correctly answering questions or completing specific tasks. Games often can encourage interaction among youth, be fun, reduce embarrassment discussing sensitive topics and reinforce learning.
4. **Flip Charts or Pamphlets.** Written materials like flip charts and pamphlets can provide information about a particular topic relatively efficiently. Flipcharts can be thought of as a series of posters bound together. They are commonly used to teach about the reproductive system, contraceptive methods, and STDs through pictures. Pamphlets or fact sheets are available for purchase on many health topics or can be easily made by facilitators at a minimal cost. Pamphlets are a good way to give students information that they can take home or refer to in the future. Facilitators who use these materials should make sure that they are culturally, developmentally and linguistically appropriate for the youth they are serving.
5. **Guest Speakers.** Guest speakers can add a personal perspective and interest to class sessions (e.g., a guest speaker who has been living with HIV can share his/her experience). Invited speakers should have a special area of expertise or experience and should be skilled at talking with youth about their particular topic.
6. **Homework Assignments.** Homework assignments are generally given to students to help reinforce learning or explore a topic more deeply. For example, in the curriculum *Reducing the Risk,* youth are given a homework assignment to interview parents about their thoughts on teens and sex. This assignment helps to reinforce learning from previous classes and also provides an opportunity for parents and youth to communicate about an important topic.
7. **Large-Group/Whole-Class Discussions.** Large-group discussions generally are led by a facilitator. Information to be discussed is sometimes presented first through a short lecture, video or skit. After the information is presented, the facilitator leads a discussion that allows for recall, analysis, generalization and personalization of the information. For example, a teacher might present some statistics about STDs and teenagers to start a discussion (introduction), and then asks the youth some questions about the statistics (recall). Youth discuss why STD rates are so high for youth (analysis). Then they list the ways they can prevent STDs (generalization) and how they will use this new information in their lives (personalization).
8. **Problem-Solving Activities.** Many effective curricula provide problems or dilemmas to students and have them make decisions, either individually or in small groups, about what they believe should be done. Sometimes, these problems are presented as letters to a columnist such as "Dear Abby," asking for advice about some problem related to relationships or sexual behavior. Other times, they are presented as questions from friends or advice to give to younger siblings. Students typically discuss the problem, weigh the risks of various alternative behavioral solutions and reach a decision about the best approach.
9. **Quizzes.** Quizzes, self-assessments, and myth/fact sheets are ways to assess how much information participants have about a subject, what they need to learn about a subject and/or what they have learned from a session. Reviewing the answers with a group also provides additional opportunities to teach or reinforce quiz information.

(Continued)

Box 3-1 Types of Activities to Increase Knowledge in Effective Pregnancy and STD/HIV Prevention Curricula *(Continued)*

10. **Roleplays.** Scripted and unscripted roleplays provide an opportunity for youth to practice skills. For example, after learning the steps for refusal, youth might act out a roleplay in which they actually apply the steps to a hypothetical scenario. Roleplays are particularly effective at teaching skills and increasing self-efficacy in those skills.
11. **Brief Lectures.** A lecture is a prepared oral presentation that may or may not use visual aids (such as charts, diagrams and slides). A lecture generally is used to present factual material in a direct and logical manner, to entertain or to inspire an audience. Lectures appeal to those people who learn by listening.
12. **Skill Demonstrations.** An important step in skill instruction includes modeling the skill. In skill demonstrations, the facilitator models the steps of a given skill (e.g., refusing sex, negotiating condom use, or using a condom correctly). Afterward the facilitator elicits feedback on his or her performance of the skill from students and sometimes has the students practice the skill themselves.
13. **Skits.** Skits are dramatic presentations of situations that can serve as input for a large- or small-group discussion. Skits are effective at engaging an audience because the performance is live and often involves the participants as actors. Skits can sometimes be used instead of videos.
14. **Small-Group Discussions or Other Activities.** Small-group discussions generally allow for more youth to be involved and express their ideas. Generally, the members of a small group are given a set of guidelines or instructions for completing a task together (e.g., generate a list of reasons why teenagers have sex and write those reasons on flip charts). Often, small groups then summarize their work for the larger group.
15. **Simulations.** Simulations attempt to demonstrate how something works in a hypothetical but realistic situation. For example, the "STD Handshake" is a classic simulation activity where youth learn how an STD can spread through a group of people by shaking hands with group members and getting signatures on index cards. The handshaking simulates sexual intercourse. Unbeknownst to one student, she/he has a mark on the back of her index card that represents an STD. Anyone who has a signature from that student also has contracted an STD and anyone else who has the signatures of those students may have an STD. Simulations are often followed by large- or small-group discussions of the major points.
16. **Statistics on Incidence and Prevalence.** Incidence is the number of new cases of a disease or condition in a defined population, within a specified period of time (often a year). Often they are expressed as rates (e.g., a pregnancy rate or chlamydia rate). Prevalence is the number of events, e.g., instances of a given disease or other condition in a given population at a designated time (such as the number of people with HIV or the number of teen mothers). These also can be expressed as rates. Presenting data about teen pregnancy and/or STD helps youth understand the scope of the problem and helps them understand their risk. Incidence and prevalence statistics can be found by doing a search on the Internet. However, local statistics may need to be obtained from local or state health departments.
17. **Videos and Discussion.** Various health education videos are available from health education organizations. Videos often are very popular with youth and are effectively used to stimulate group discussions and reinforce learning. One challenge with videos is that they can become outdated with respect to the information they provide and youth fashion, slang and culture.
18. **Worksheets.** A worksheet requires youth to think about the topic at hand and review important/critical points. Worksheets are better used when the product is authentic. For example, asking youth to write a letter to a friend about preventing HIV is more authentic than asking youth to answer 10 straightforward questions about HIV prevention methods.

problems. Thus, sex and STD/HIV education programs have the potential to be perceived by youth as very relevant.

However, this potential may not be realized if the instructional material does not match the students' needs and knowledge. If the instructional topics are not developmentally appropriate, the instruction does not cover questions or broader topics of interest to the students, and the most important concepts are not covered, then students may become disinterested and learn less.

To increase knowledge (as well as improve attitudes, perceptions of peer norms, skills, etc.), the instructional material needs to meet the particular needs of the students. It is more important that students master the most important concepts

relevant to their lives than learn a greater number of less important concepts.

2. **Learning is promoted when material is tailored to the age, knowledge level, level of sexual experience and gender of the students** (Kirby, Laris et al. 2006). Consistent with the previous principle, this means that the information, skills and behavioral message being taught should be appropriate to the level of experience, knowledge and skills that the students have. For example, if students are very young and not even considering sex, then instructing them about methods of contraception will not be harmful, but may not seem relevant to the students and they may not remember them. As students begin to go through puberty and some begin to have sex or think about it, then material on contraception is likely to be more relevant to them. Conversely, if most students are having sex, focusing solely on abstinence may seem irrelevant, reducing the potential for learning.

   Teaching methods also should reflect the characteristics of the students. For example, if students do not have adequate knowledge or relevant experience about relationships, then the instruction should be taught at a more elementary level and should provide relevant experience from others (e.g., through roleplays, videos, or other means) instead of relying on the students' experience. If the students are very knowledgeable and have a large amount of experience and the instructional levels are too low, then the students may find the material too elementary, boring and irrelevant.

   If these levels vary among the students, as they often do, then the instruction needs to address the multiple levels of knowledge or experience to the extent feasible. One way to do this is to review the material quickly. Another way is to allow more informed students to answer questions or teach other students (e.g., through small-group discussions, older peer-led activities, games, roleplaying, etc.).

   Material also should be tailored for each gender, whenever possible. For example, it should reflect potentially different learning styles of each gender, the particular pressures to engage in sexual activity that each gender faces, and differential control over condom and contraceptive use.

3. **Learning is promoted when new knowledge is demonstrated to students rather than simply described** (Merrill 2002). For example, simulations can illustrate how the risks of pregnancy increase with ongoing unprotected sex over time (see pregnancy risk activity in Chapter 4) and how sexually transmitted infections can spread rapidly among sexual networks (see STD handshake activity in Chapter 4). Videos can illustrate the effects of unplanned pregnancy or STDs. Roleplaying can demonstrate assertive and refusal skills to avoid undesired sexual activity or to insist on using contraception. Condom demonstrations can show how to use condoms properly.

4. **Learning is promoted when complex concepts or skills are broken into a progression of smaller concepts or skills, when the smaller concepts or skills are taught first, and when there is then a logical progression to more complex skills** (Gibbons, Bunderson et al. 1995). For example, skills to avoid undesired or unprotected sexual activity may be complex. However, they can be broken down into skills to recognize in advance situations that might lead to undesired or unprotected sexual activity, as well as assertiveness skills to avoid or get out of those situations. The assertiveness skills, in turn, can be broken down into verbal skills and assertive body language. Then, each of the verbal skills can be described, modeled and practiced. These skills can first be used in simpler situations in which a person is not particularly attracted to his/her date for the evening and can then progress to more complex situations in which the person really likes and is attracted to his/her date, may be alone, may have had too much to drink and so forth. Similarly, skills to use condoms correctly can be broken down into skills to purchase condoms, skills to have condoms available when needed, multiple verbal skills to insist on the use of condoms and the necessary steps to actually use a condom properly. Again, they can first be taught in simpler situations (e.g., when the

partner does not mind using a condom) and then in more challenging situations (e.g., the partner really does not want to use a condom).

5. **Learning is promoted when multiple examples and perspectives are provided. When possible, multiple examples are beneficial** (Merrill 1994). These can both reinforce the principle or concept being illustrated and increase the chances that students will relate to one or more of them. Similarly, each example should be approached from multiple perspectives so that students see and hear different perspectives, concepts are reinforced and students can integrate the material (Spiro, Feltovich et al. 1992).
6. **Learning is promoted when existing knowledge is activated as a foundation for new knowledge** (Blair and Caine 1995; Merrill 2002). Learning is encouraged when students are directed to recall or apply knowledge from past instruction or past experience that can be used as a foundation for the new knowledge. For example, giving students the opportunity to demonstrate what they already know also can be an effective way to actively engage them, refresh their memories and possibly clarify their thinking.

   To the extent feasible, students should become explicitly aware of their preconceptions and prior learning and become willing both to build upon that knowledge and to unlearn when necessary. For example, lessons should include a discussion of myths about pregnancy commonly held by young people, as well as activities to reduce exaggerated misperceptions of peer sexual activity.
7. **Learning is promoted when students are actively engaged in solving problems** (Jonassen 1999; Nelson 1999; Merrill 2002). Learning is encouraged when students are *actively* rather than *passively* addressing real problems (Angelo 1998). Students need to participate in instructional activities, not listen passively to the provision of information. This means that the program needs to include a variety of interactive activities, such as games, simulations and roleplays. It also should include activities in which students are given dilemmas about whether or not they should engage in sexual activity or use protection and must make decisions (individually or in small groups) about those choices. Alternatively, programs should include activities in which students are given scenarios and must advise participants in the scenarios about what to do.
8. **Learning is promoted when students organize their new concepts and skills.** If students are provided with a useful structure to organize their new knowledge or skills, they will learn better than if the facts or skills are not attached to a framework and are not organized (Andre 1997).

   One very important structure is the clear prescriptive message about responsible sexual behavior that should be given to the students. Facts, concepts and skills should be continually linked to that message. For example, facts about the probabilities and consequences of pregnancy and/or STDs should be linked to abstinence and use of protection against pregnancy and STDs. If a fact, concept or skill is not related to that message, then its inclusion should be questioned.

   Another way to organize concepts or skills is to use mnemonic devices. For example, in the curriculum *All4You!*, "PSST" is used to help students learn three steps for refusing undesired sexual activity: Pick your limit, Say it strong, Suggest something else to do, and Tell why (Coyle 2006). Similarly, in *Making Proud Choices*, "SWAT" is used to help students remember four different steps of a refusal skill model: Say no, explain Why, offer an Alternative, and Talk it out (Jemmott, Jemmott III et al. 2002).
9. **Learning is promoted when new knowledge is applied multiple times to solve problems** (Merrill 2002). This is consistent with the old adage "practice makes perfect" (Gardner 1999). As stated above, the problems should be relevant to the students and consistent with the instructional goals (Schwartz, Lin et al. 1999). They also should be somewhat varied and provide a range of situations. For example, lessons might describe different scenarios in which undesired sexual activity might take place and then ask students to develop different methods of avoiding or getting

out of these different situations (see situations activity in Chapter 4). They also might involve identifying different situations in which protection against pregnancy or STDs might not be used and brainstorming methods to avoid or get out of these situations without having unprotected sex. These activities might include group identification of these situations, group suggestions for avoiding or getting out of them, roleplaying to practice skills needed to avoid or get out of them, and individual decision making about which solutions would work best for each individual. The key is to provide multiple opportunities to apply the content for maximum knowledge gain.

10. **Learning is promoted when students are given the proper balance of challenge and support** (Blair and Caine 1995; Angelo 1998). Students should be taught basic concepts or skills and, as they strive to apply them, they should be given first reasonably easy and then progressively more difficult problems to solve or skills to learn. As needed, they should be given both appropriate feedback and coaching. When coaching, give young people ample time to ask questions and explore options before jumping in with suggestions. Feedback should be timely, specific and constructive. However, it also should be withdrawn over time. That is, students should be given the support they need to learn a concept or skill, but that support should gradually be withdrawn so that they learn to use concepts or perform skills well on their own (Collins, Brown et al. 1989).

11. **Learning is promoted when students are encouraged to apply or integrate their new knowledge or skill into their everyday lives.** As noted above, students should be encouraged to think about which decisions are right for them, which situations they will avoid, and which skills they will need to abstain or use protection. They also learn more if they have to reflect on, discuss or defend their new knowledge or skill and if they use their knowledge or skill in new personal ways (Merrill 2002). For example, when they encourage their peers either to abstain from sex or use condoms or other forms of contraception, they may use their skills in new ways. Homework assignments in which students are asked to use a skill or share with others the information they learned may help them integrate that information and understand it more clearly.

12. **Learning is promoted when instruction is individualized** (Mullen, Mains et al. 1992). There are many ways to individualize instruction. For example, when students roleplay, they can be given several different scenarios and choose ones that are most appropriate or realistic for them individually. When calling STD hotlines or clinics, students can craft questions ahead of time that they wish to have answered. When students are given the opportunity to put questions in an anonymous question box, their individual questions can be answered.

    If students can move at their own pace, they also can learn more. Thus, interactive computer programs that present or review relevant material and that allow students to move at their own pace can be helpful. Similarly, written materials and resources in the community can allow students to access and read them when they want to do so. Well-designed interactive computer programs also can tailor the activities for the individual student's gender and sexual experience or intentions.

13. **Learning is promoted when effective teachers use an array of teaching methods, because there is no single, universal approach that suits all situations** (Blair and Caine 1995; Van Merriënboer 1997). Different people learn most effectively in different ways. For example, some people learn most efficiently through hearing, others through seeing and others through experiencing. In addition, some methods are better suited to teaching certain skills and fields of knowledge than are others. At a minimum, teachers should use different instructional methods, and, if possible, should become familiar with the instructional methods that are most effective with their own students and use those

methods more often. For example, they should use short lectures, videos, small-group discussions, simulations, games, roleplaying, individual worksheets and other methods (see Box 3-1).

14. **Learning is promoted when students work regularly and productively with other students** (Gardner 1999; Merrill 2002). Working together may encourage students to reflect on what they know, clarify their thoughts and defend them. It also may provide them with the opportunity to show others what they have learned and see their own progress, thereby increasing their motivation to learn. For example, curricula should regularly include small-group activities among the repertoire of types of activities and should allow students to demonstrate knowledge, assertiveness skills and other skills to one another.
15. **Learning is promoted when students invest time and make a committed effort** (Angelo 1998). For example, activities that motivate students to learn and that keep them involved can increase learning. These can include class projects or activities that involve them and creative and interesting homework assignments, such as assignments to talk with friends or parents about relevant topics or to obtain information from clinics or other community organizations.
16. **Learning is promoted when students are assessed appropriately and understand the assessment criteria** (Angelo 1998). Proper assessment can motivate some students to learn and can help students review what they have learned. Under the right conditions, it also can demonstrate to students what they have learned. For example, if the instruction is part of a health class, the knowledge aspects can be tested at the end of instruction. If students develop portfolios, completion rates can be assessed. If skills are taught, those skills can be assessed through roleplays in small groups.

What effective teaching methods are most commonly used and what topic areas are most commonly covered in curricula that change sexual behavior?

A review of effective programs identified teaching strategies that are commonly used and believed to be effective in increasing knowledge and changing behavior. These are summarized in Box 3-1. A review of these same programs identified topics that are commonly covered in pregnancy and STD/HIV prevention programs (Kirby, Laris et al. 2006). They are included in Box 3-2. If the program is devoted solely to pregnancy prevention, then some STD/HIV topics could be excluded. Conversely, if a program is devoted solely to STD/HIV prevention, then some pregnancy topics could be excluded. However, many youth have stated that they are concerned about both pregnancy and STD/HIV and that both possible outcomes of sexual activity motivate them to remain abstinent or to use condoms.

Conclusions

Knowledge is important because it provides the foundation for many values, attitudes, perceptions of norms, skills and, ultimately, for behavior. However, simply increasing knowledge about sexuality in general may not lead to desired changes in sexual behavior. Rather, what is needed are improvements in those particular facts, concepts and skills that can change important mediating factors and can provide a compelling case for avoiding sexual risk behavior.

Innumerable studies have demonstrated that it is possible to increase knowledge about numerous topics (and to increase skills as well). Findings from a vast body of educational research suggest that there are important educational principles that increase learning. To the extent possible, these should be incorporated into sex and STD/HIV curricula activities.

For additional information on implementing these instructional principles, see the "Instructional Methods/Pedagogy" section of the resources listed at the end of this volume.

Box 3-2 Important Topic Areas to Cover in Pregnancy and STD/HIV Prevention Curricula

Relationships

- Qualities of healthy and unhealthy romantic relationships
- Gender equality and inequality in relationships
- How to build healthy relationships
- How to get out of unhealthy relationships
- How to express love and affection without having sex

Pregnancy

- How pregnancy occurs
- Likelihood of getting pregnant (or getting someone pregnant)
- Myths about chances of getting pregnant
- Consequences of pregnancy and childbearing, both short term and long term
- Methods of reducing the risk of pregnancy

STD/HIV

- How STDs are transmitted
- HIV progression and incubation
- Symptoms (and lack of symptoms)
- Myths about STDs
- Chances of contracting STDs, including HIV
- Consequences of contracting STDs, including HIV, both short term and long term
- Ways to reduce the risk of STDs, including HIV (including high-risk, low-risk and no-risk behaviors)

Influences on Sexual Decisions

- Internal desires and pressures
- Personal values
- Parental/family values
- Peer pressures
- Partner pressure (lines partners use to get people to have sex and methods of resisting them)
- Sexual values portrayed in the media
- Alcohol or drug use
- Decision-making skills and problem-solving steps

Values/Norms

- Personal values about having sex and under what conditions to have sex
- Personal attitudes about using condoms and contraception
- Parents/family and community values about teens having sex
- Parents/family and community values about teens using condoms and contraception
- Peer norms about teens having sex
- Peer norms about teens using condoms and contraception

Situations That Might Lead to Unwanted or Unprotected Sex

- Their characteristics
- How to recognize them in advance
- How to avoid them
- How to get out of them

Communication and Communication Skills

- Why partners might not tell you they have an STD
- The importance of communicating personal beliefs about sex and use of protection
- Aggressive, passive and assertive communication styles
- How to effectively insist on not having sex—refusal skills
- How to effectively insist on using condoms and contraception

Abstinence

- Advantages of abstinence
- Pressures to have sex and ways of overcoming those pressures
- Distorted views of peer sexual activity
- Ways to show affection without having sex

Mutually Monogamous Relationships

- Reasons to have mutually monogamous relationships instead of multiple sexual partners
- Risks of having multiple sexual partners
- Additional risks of sequential versus concurrent partners[5]

Condoms

- Reasons to use condoms, if having sex
- Effectiveness (including myths)
- Rights to access
- Where to obtain
- Types of condoms and their characteristics
- How to carry and have available
- How to use properly—correct steps for using
- Barriers to obtaining and using condoms and ways of overcoming those barriers (including ways to prevent condom use from ruining spontaneity, mood and pleasure)

Contraception

- Reasons to use contraception, if having sex
- Rights to access
- Where to obtain
- Different types and their characteristics, including their effectiveness rates
- Criteria for selecting a method
- How to use properly
- Myths about contraceptives
- Barriers to obtaining and using contraception and ways of overcoming those barriers
- Importance of dual method

STD/HIV Testing and Treatment

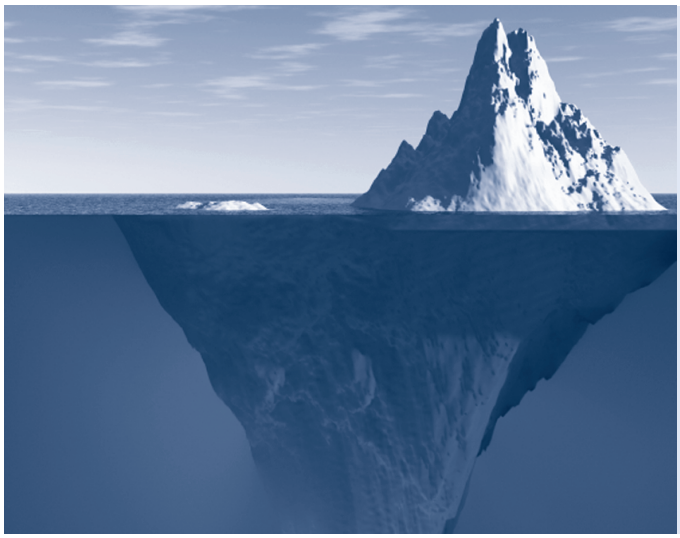
- Importance
- Rights to access
- Where to obtain
- Procedures

Community Resources

- Counseling
- Condoms
- Contraception
- Pregnancy and STD/HIV tests
- Dating violence/sexual abuse

[5] This topic is not commonly covered, but should be and increasingly is being covered.

4 Improving Perceptions of Risks—Both Susceptibility and Severity



Keys to Improving Perceptions of Risk

Focus on important risks (e.g., pregnancy and STD/HIV) and situations that might lead to risk behavior. Help youth overcome a sense of invulnerability by visualizing and personalizing risks, situations leading to risks and methods of avoiding them.

Background

As we all observe daily, if people believe that some behavior will greatly increase their likelihood of a deadly outcome, they are less likely to engage in that behavior. For example, people do not intentionally drive the wrong way down the freeway, because 1) driving the wrong way increases the likelihood of a head-on collision and 2) the severity of a head-on collision is great.

This basic principle of behavior is embedded in many socio-psychological theories of human behavior, particularly those that assume that people generally consider alternative courses of action, identify the possible consequences of each course of action, consider the probability of each consequence, assess each consequence according to its desirability (or undesirability) and make a decision about which course of action to follow.

Many theories commonly used to design effective health education programs incorporate this principle. (See the "Health Education and Health Behavior Theory" section in the resources at the end of this book.) According to the health belief model, individuals' perceived susceptibility to a disease or health problem and their perceived severity of that disease or health problem affect their efforts to avoid it (Rosenstock 1974). For example, if people believe that 1) particular behaviors increase their likelihood of contracting HIV and 2) HIV is a severe disease, then they are more likely to adopt behavior that will reduce their susceptibility to HIV.

Similarly, in both the theory of planned behavior and the theory of reasoned action, one of the three factors most strongly affecting intentions to engage in any behavior is behavioral beliefs (Fishbein and Ajzen 1975; Ajzen 1985; Ajzen and Madden 1986). These are beliefs about the likely outcomes of any behavior (i.e., the probabilities of possible outcomes) and the evaluations of these outcomes (i.e., the extent to which they are positive or negative). These assessments of behavioral outcomes affect attitudes toward the behavior, which in turn affect intentions and, ultimately, behavior.

Finally, according to social cognitive theory, people evaluate alternative courses of action and develop "expectancies" (based on both expectations about the consequences of courses of action and the value attached to those consequences), which in turn affect their decisions about behavior (Bandura 1986).

Although a number of possible emotional, social and health risks are associated with sexual intercourse, the most commonly researched risks are those involving pregnancy and STDs. This chapter, and more generally this book, focuses on those risks.

Authors use a variety of related terms involving risks differently or even sometimes interchangeably. For example, the following words are all commonly used: risks, susceptibility, vulnerability, severity and seriousness. In this chapter, the "risks" associated with some course of action will refer to the negative consequences that may result from a course of action (e.g., unintended pregnancy or STD). "Susceptibility" will refer to the likelihood of those negative consequences occurring and "severity" will refer to the negative assessments of those consequences.

It is widely believed that some young people (perhaps a minority) feel invulnerable and that this sense of invulnerability increases their risk behavior (Weinstein 1988; Weinstein 1993; Lapsey 2003). For example, some adolescents may not think that it is likely that they will become pregnant (or get someone pregnant) or that they will contract an STD; instead, they may believe it will only happen to others. According to some psychologists, adolescents are egocentric and create "personal fables" or modes of understanding that include themes of invulnerability, omnipotence and personal uniqueness (Elkind 1967) and these egocentric fables are related to sexual risk behavior (Arnett 1990). Other psychologists view the creation of personal fables and adolescents' sense of invulnerability as adaptive mechanisms to the many challenges they face as their egos develop (Lapsey 1993).

These beliefs about invulnerability are summarized here because they are held by many adults working with youth and by some psychologists. However, a strong body of research does not yet exist to support these beliefs about the role of invulnerability.

It is definitely true that many adolescents engage in risk behaviors because they simply do not consider the possible risks. That is, they may engage in risk behaviors without even assessing the possible consequences (Steinberg 2003). This is especially true when they encounter new situations, are with their peers, are more oriented to the present rather than the future and are less able to inhibit their impulses (Steinberg 2003).

Adolescents' failure to consider risks and plan effectively may have a biological basis. In recent years, neuroscientists have learned that adolescents' brains continue to grow and change during the second decade of their lives. In particular, the prefrontal cortex, which affects judgment and impulse control, matures with age (Weinberger, Elvevåg et al. 2005). With a less developed prefrontal cortex, adolescents are less likely to plan and consider risk and more likely to be impulsive.

Regardless of whether sense of invulnerability is adaptive or whether it is biologically based, many professionals commonly accept that correcting adolescents' perceptions of invulnerability to pregnancy or STD has the potential to reduce their sexual risk behavior.

Perceiving risk involves recognizing the conditions that might lead to risk and then assessing personal risk (Millstein 2003). The ability of teens to recognize these situations, in turn, is affected both by their cognitive knowledge of the important characteristics of the situation and by their experience with similar situations (Millstein 2003). Consequently, it is important for teens to review their own experiences and those of their peers, to identify those situations that they or their peers encountered that could have led to undesired, unplanned or unprotected sex, and to describe those situations accurately.

In sum, perceptions of risk play a central role in many theories of health and risk behavior. Many health education interventions focus on perceptions of risk in order to improve health behaviors and reduce risk behaviors (Millstein 2003).

When applying these concepts about perceptions of risk to sexual behavior, there are three questions that should be asked:

1. Do teens' perceptions of risk of different sexual behaviors affect whether they engage in those behaviors?
2. Can we increase perceptions of risk, susceptibility and severity of pregnancy and STDs, including HIV?
3. What are effective teaching methods for improving perceptions of risk?

These questions are answered below.

Do teens' perceptions of risk of different sexual behaviors affect whether they engage in those behaviors?

There are at least two kinds of quantitative evidence assessing the impact of perceptions of risk on sexual behavior. First are the studies measuring the relationship between perceptions of risk and sexual behavior (Kirby and Lepore 2007). The summary of studies in Table 4-1 provides little consistent evidence that perceptions of risk are significantly related to initiation of sex. Although three studies found that greater perception of risk of pregnancy or STD/HIV was related to later initiation of sex, 14 studies found no significant impact and three studies found that greater perception of risk was related to earlier initiation of sex. These results are not consistent with the second type of quantitative evidence—the results of numerous studies of the reasons why young people do not have sex. Those studies consistently identify concern about the risks of pregnancy and concern about the risk of STD/HIV as being among the top few reasons that young teens give for not having sex.

Why do these two types of research produce such different results? Part of the answer is simple. Theory predicts that teens who believe that having sex will place them at high risk of pregnancy or STD will therefore be less likely to have sex. This would produce a negative correlation between perceptions of risk and behavior (higher perception of risk is correlated with lower chance of having sex). However, teens who do not have sex are not at risk of pregnancy or STD. This fact produces a positive correlation (lower chance of having sex is correlated with lower perceived risk). Because it is often difficult to separate out the directions of causality, the results from studies about the relationship between perceived risk and initiation of sex are mixed or not significant. However, this does not mean that increasing perceptions of risk does not lead to delayed initiation of sex.

In contrast, the evidence is both much stronger and more consistent that perceptions of risk have an impact on contraceptive use and condom use specifically (Tables 4-2 and 4-3). Five out of eight studies found that concern about the risks of pregnancy had an impact on contraceptive use, and 9 out of 27

Table 4-1 Number of Studies Reporting Effects of Perceptions of Risks of Pregnancy or STD/HIV on Initiation of Sex

	Later Initiation of Sex	No Significant Effects	Earlier Initiation of Sex
Perceived severity of pregnancy or concern about risk of pregnancy	2	7	0
Perceived risk of STD/HIV or concern about STD/HIV	1	7	3

Table 4-2 Number of Studies Reporting Effects of Perceptions of Consequences of Pregnancy and Concern About Pregnancy on Contraceptive Use

	Increased Contraceptive Use	No Significant Effects	Decreased Contraceptive Use
Perceived consequences of pregnancy and overall concern about pregnancy and importance of avoiding it	5	3	0

Table 4-3 Number of Studies Reporting Effects of Overall Concern About Risks of STD/HIV on Condom Use

	Increased Condom Use	No Significant Effects	Decreased Condom Use
Overall concern about risks of STD/HIV and motivation to avoid it	9	17	1

studies found that concern about STD/HIV had an impact on condom use. Not surprisingly, multiple studies also have found that teens commonly list concern about pregnancy and concern about STD as important reasons why they use contraception and condoms, respectively.

Can we increase perceptions of risk and severity of pregnancy and STDs, including HIV?

Multiple studies provide strong evidence that it is possible to increase perceptions of risk of pregnancy and STDs, both in terms of susceptibility and severity (Table 4-4) (Kirby, Laris et al. 2006). About half of all the studies that measured programmatic impact on one or more of these outcomes found a significant positive effect. All of these outcomes except one were positively affected by at least one program. The one exception was perception of susceptibility to pregnancy. It may be the case that young people already know that pregnancy can occur if they have sex, leaving little room for change on this factor. Alternatively, young women may have had unprotected sex, did not become pregnant, and therefore believe they are infertile. Finally, the failure of these studies to find an impact on perception of susceptibility to pregnancy may reflect a greater STD/HIV focus of many of the programs. In any case, the evidence is clear that it is possible to increase individuals' perceptions of their own risk of pregnancy and STDs, including HIV, if they have sex or unprotected sex.

What are effective teaching methods for improving perceptions of risk?

In general, many of the principles of effective teaching that are discussed in the previous chapter apply especially well to teaching about risk. In addition, a few other principles apply. Examples of activities incorporating these principles are presented later in this chapter. To reduce unprotected sex, curricula need to:

1. **Emphasize the risks of unprotected sex.** At a minimum, these risks should include pregnancy and STD. Because teens commonly specify both concern about pregnancy and concern about STDs as reasons for delaying sex or avoiding unprotected sex, in most curricula, both risks should be given strong emphasis.

   However, among some groups of youth, other risks also should be identified. These include possible feelings of guilt, possible disapproval from parents should they find out, possible loss of reputation, possible feelings of being used and other negative personal feelings.

   Because adolescents' sense of invulnerability can be constructive in many social situations, programs should not try to undermine their general sense of invulnerability; rather, programs should help youth realize that they are vulnerable specifically to unintended pregnancy, STDs and possibly other specific risks if they have unprotected sex.

2. **Use a variety of teaching methods to describe, illustrate, model, and personalize the likelihood of becoming pregnant or contracting an STD.** They should provide information, provide plausible scenarios with a cause and an outcome, increase fear arousal and produce self-evaluation and re-evaluation. The methods should include all of the following kinds of activities, if possible:

Table 4-4 Number of Programs Having Effects on Perceptions of Risk

	Had a Positive Effect	No Significant Effects	Had a Negative Effect
Perceived susceptibility of pregnancy (N=3)	0	3	0
Perceived susceptibility of STD (N=2)	1	1	0
Perceived susceptibility of HIV (N=16)	8	8	0
Perceived severity of pregnancy (N=5)	2	3	0
Perceived severity of STD (N=1)	1	0	0
Perceived severity of HIV (N=4)	3	1	0

a. Presentations and discussions of accurate statistical information about the likelihood of getting pregnant and contracting an STD. These can include national data on teen pregnancy and STD rates or local data on these rates. Local data are especially effective if the rates are higher than the national data.

b. Activities that demonstrate that teens' chances of becoming pregnant continually increase each time they have unprotected sex. Most teens will become pregnant within a year if they frequently have unprotected sex. (See Activity 4-1: Pregnancy Risk.)

c. Interactive activities that model how teens become part of rapidly expanding sexual networks if they have sex with more than one person, on average, and how STDs can rapidly spread through these sexual networks. If STDs, and especially sexually transmitted HIV, are the focus, programs should include interactive activities that demonstrate that STDs, and especially HIV, spread more rapidly when people have concurrent sexual relationships instead of sequential relationships. (See Activity 4-2: STD Handshake.)

d. Assessment of the risk of acquiring an STD through different activities. For example, students can rate or rank the risk of different sexual activities, the educator can make sure the rating or ranking are correct and then the class can discuss the ratings. (See Activity 4-3: STD Risks.)

e. Videos, roleplays or other activities involving youth like those in the class, which emphasize that young people can become pregnant (cause a pregnancy) or contract an STD if they have unprotected sex. These activities should emphasize the negative consequences of unplanned pregnancy or STD at their age. Ideally, they should depict both short-term and long-term consequences and consequences that matter to the young people. For example, if a group of youth does not believe they will graduate from high school anyway or that they will live very long, then focusing on the effects of childbearing on high school graduation or on long-term effects may not be effective. Clearly, these activities should not glamorize or trivialize unplanned parenthood, as some magazines and movies have.

f. Activities that rebut myths that adolescents commonly have about becoming pregnant or contracting an STD. These include myths such as: "Pregnancy will not occur if people have sex only once"; "raising a child alone is not a big deal"; and "you can tell if your partner has an STD by his/her appearance."

3. **Use a variety of teaching strategies to describe, illustrate, model and personalize the consequences of becoming pregnant or contracting an STD.** These should include the following:

   a. Activities to help youth think about how parenting would affect them in the short term, e.g., continuing in school, how they spend their weekends and their relationships with their friends.

   b. Activities to help youth think about what they want to do in the future and how becoming a parent would affect what they want to do. (See Activity 4-1: Pregnancy Risk.)

   c. Activities to help them think about the consequences of some STDs (e.g., how it would feel to tell their sexual partners that they had an STD and may have infected them, what it would be like if they had genital warts, how an STD would affect their sex lives, how it would feel to tell all future partners that they had herpes, how their lives would change if they contracted HIV, or how their lives would change if they became sterile).

   d. One or more activities depicting youth like themselves (if possible) having an STD, having HIV, being sterile, etc. These depictions should be balanced and accurate. They should not overly dramatize the effects of having different STDs, but they should not trivialize them, either. They also should not increase stigma against those people who may have an STD, including HIV.

4. **Have youth identify and describe common situations in their lives or in the lives of their peers that may lead to undesired, unplanned or unprotected sex.** To avoid sexual risk behaviors, youth must be able to recognize and assess conditions that might lead to sexual risk (Millstein 2003). Youth are more likely to personalize the risks if they build upon their own experience or those of their peers by having the entire class or group identify and describe all of the common situations that might lead to undesired sex or unprotected sex. When describing these situations, each of the elements that increase the risk should be identified. For example, one common situation that can lead to sexual risk-taking among youth is: Young people are at a party. No adults are present. Alcohol is available and people are drinking. There are rooms or other places nearby where people could have uninterrupted sex. Some youth are sexually attracted to other youth at the party.

   After youth have described several different situations like the above that might lead to unprotected sex, their common elements (e.g., drinking or lack of supervision) should be noted.

   It is extremely important that youth describe methods of avoiding these situations or getting out of them if they get into them. This can be done both by verbally describing the strategies and by conducting roleplays to build skills and change norms. However, those are covered in the chapter on skills. (See Activity 7-1: Lines That People Use to Pressure Someone to Have Sex and Activity 7-2: Situations That May Lead to Unwanted or Unintended Sex.)

5. **Throughout the curriculum, repeatedly emphasize a clear and appropriate message about the need to avoid sexual risks and how to avoid them.** For many young people, an appropriate message might be: "It is very important to avoid unintended pregnancy and STDs. Abstaining from sex is the safest method. If you have sex, females should always use hormonal contraception to prevent pregnancy and males should always use condoms correctly to prevent STDs."

How has perception of risk been measured?

Table 4-5 lists items that have been used to measure adolescents' perceptions of risk. These are meant to be illustrative, not comprehensive.

Nevertheless, these items may help curriculum developers identify some of the more specific elements that programs and their associated research have addressed (e.g., perceptions that having a baby would mess up their life or that having a baby would make them feel like an adult). These items also may help researchers conduct formative evaluations of entire curricula or specific activities and thereby improve their effectiveness.

Conclusions

Too often, youth give too little attention to the risks of sex and unprotected sex, either because of a sense of invulnerability, "just not thinking," brains that are still maturing, or for other reasons. Fortunately, multiple studies and different kinds of evidence have demonstrated that 1) programs can increase perceptions of sexual risks and 2) increasing perceptions of risk can reduce the chances of unprotected sex. To increase perceptions of risk, programs should clearly describe the risks of unprotected sex, including unintended pregnancy and STDs—in terms of both susceptibility and severity. Programs also should have youth identify the common situations that might lead to undesired, unplanned or unprotected sex and describe methods for both avoiding and getting out of those situations. Activities should be interactive and designed to have youth personalize these risks. Finally, a clear message about the best methods of avoiding risks should be emphasized repeatedly.

Table 4-5 Examples of Items That Have Been Used to Measure Perceptions of Risk[7]

Each item with a + sign represents a positive perception and a protective factor, while each item with a — sign represents a negative pereception and a risk factor. Thus, within each scale, items with a + sign should be scored in the opposite direction of those with a — sign .

Positive or Negative Factor	Perceived susceptibility to pregnancy or STD/HIV
+	If I have sex without contraception, I would probably get pregnant (or get someone pregnant).
+	If I have sex without using a condom every time, I might get an STD.
+	If I have sex without using a condom every time, I might get HIV.

Positive or Negative Factor	Perceived consequences of STDs and HIV/AIDS
+	If I got an STD, I would be very embarrassed.
+	If I got an STD, I would hate to have to tell my partner.
+	If I got an incurable STD, it would mess up my life.
+	If I got an incurable STD, I might need to deal with it the rest of my life.
+	If I got an incurable STD, I would worry about infecting others.
+	Getting HIV/AIDS would really mess up my life.
+	Getting HIV/AIDS might mean that I would have to take lots of pills the rest of my life.
+	Getting HIV/AIDS would prevent me from doing many things I want to do.

Positive or Negative Factor	Perceived consequences of pregnancy and childbearing
+	I am not emotionally ready to be a parent.
+	I am not financially ready to be a parent.
+	Being a teen parent would make it more difficult to finish school.
+	Being a teen parent would keep me from doing many things I like to do.
+	Being a teen parent would really mess up my life.
+	If I got pregnant (or got someone pregnant), I would be very embarrassed.
+	Getting pregnant at this time in my life is one of the worst things that could happen to me.
—	Having a baby to take care of would make me feel loved and needed.
—	If I had a baby, for the first time I would have something that is really mine.
—	If I had a baby, I would never be lonely.
—	If I had a baby, my boyfriend would be more committed to me.
—	If I had a baby, I would feel more like an adult.
—	If I had a baby, I would feel I had done something meaningful in life.
—	My family would help me raise a baby.

7 Most of these items are based on actual questions used to measure factors in previous research. These items specify more precisely some of the factors that are related to behavior and can therefore be helpful when designing programs to address these factors. They also can be used to create items for questionnaires in survey research.

Activity 4-1

Pregnancy Risk Activity and Follow-Up Activities

Description of Activity

Objectives: Students will be able to:

1. Describe the chances of becoming pregnant (or getting someone pregnant) when people have unprotected sex
2. Summarize the reduced chances when they either do not have sex or use contraception effectively
3. Summarize the personal consequences of unintended pregnancy

Risk and Protective Factors Affected:

1. Knowledge
2. Perception of risk of unprotected sex, including both probability of pregnancy and short-term and long-term consequences of pregnancy

Activity:

Students choose a number from 1 to 6. The educator tells them that the chances of pregnancy from unprotected sex are roughly 1 out of 6 each month. Then the educator randomly pulls a number from a bag simulating a pregnancy test, calls the number and tells students who chose that number to stand up and remain standing, because they just learned they were pregnant. After returning the first number to the bag, the instructor randomly chooses another number for the second month, calls it out, etc. This continues until either everyone is standing or 12 months have passed.

The educator notes that not everyone got pregnant the first month, but before the year is out, all, or nearly all, of the students are pregnant and standing. She/he also notes that some numbers were called twice reflecting the fact that people may become pregnant a second time if they continue to have unprotected sex.

The educator then tells the students that they have all just learned that they are pregnant (or got someone pregnant) and asks them to write a paragraph describing how they feel, whom they will tell, what it will feel like to tell their parents, their girl/boyfriend and other friends and what they will do during the next few days.

The educator then asks youth to create a list of things they would like to do in the following years and assess how becoming a parent might impact or prevent some of those activities.

Finally, the educator holds up the bag with the six sheets of paper and calls out the numbers. However, this time the educator reads the message on the sheet of paper. Five of the messages state the students did not become pregnant because 1) they decided not to have sex and stuck to that decision or 2) they always used contraception effectively. One of the six sheets of paper states the students did become pregnant, because they had unprotected sex.

Important Considerations in Using It

Possible Pitfalls That Might Reduce Effectiveness:

1. Not all students participate (choose a number).
2. Students are not given sufficient time to contemplate how they would feel if they just learned they were pregnant or got someone pregnant.

(Continued)

Pregnancy Risk Activity and Follow-Up Activities

(Continued)

References for Lessons That Describe a Similar Activity More Fully

1. *It's Your Game, Grade 8,* Lesson 2, Activity II: Pregnancy Probability
2. *It's Your Game, Grade 8,* Lesson 5, Computer-Based Activity: Body Art
3. *Safer Choices: Level 1,* Class 5B, Activity 4: Dealing with a Pregnancy
4. *Safer Choices: Level 2,* Class 4, Activity 2: Pregnancy Risk Activity Round 1
5. *Safer Choices: Level 2,* Class 4, Activity 3: Pregnancy Risk Activity Round 2
6. *Safer Choices: Level 2,* Class 4, Activity 4: The Impact of a Pregnancy

Activity 4-2

STD Handshake

Description of Activity

Objectives: Students will be able to:

1. Describe how one or more STDs can pass rapidly throughout a sexual network if people have sex and are not protected by condoms
2. Describe how the number of sexual partners each person has dramatically affects the spread of STDs
3. Describe how concurrent sexual partners instead of sequential sexual partners greatly increases the spread of STDs

Risk and Protective Factors Affected:

1. Knowledge of how STDs spread rapidly through sexual networks
2. Perception of risk of sex not protected by condoms and of risk of multiple partners

Activity:

The educator gives each student a sheet of paper. On each sheet are three boxes with room for 1, 2 and 3 signatures within each box, respectively. On the back of one sheet of paper is a colored dot.

The educator asks each student 1) to shake hands with one other person and to record that person's signature in box 1, 2) to shake hands with two other people and record both their signatures in box 2 and 3) to shake hands with three other people and to record their signatures in box 3.

The educator then informs the students that shaking hands hypothetically represents having unprotected sex and that, hypothetically, the person with a colored dot has an STD. She/he then asks the person with a colored dot to stand and to read off the name of the person in box 1. That person has become infected and then stands. Because everyone had sex with only one person, no one else has become infected. Thus, one new person becomes infected.

In part two, the person with the colored dot stands and reads the name of the person with whom he/she shook hands and became infected with an STD. That person then stands and reads the name of the person with whom he/she had sex after the first person. That person then stands. Thus, three new people become infected.

In part three, the same process is repeated and each person who becomes infected reads the names of the people with whom he/she had sex after becoming infected. Thus, seven new people become infected.

This has assumed that all sexual relationships are sequential (people do not have sex with former sexual partners after they have sex with a new partner). If all sexual relationships are concurrent, then each newly infected person infects all partners, both current and past. Thus, students who become infected call out all the names on their lists, not just the names of the later sexual partners, and typically everyone in the class becomes infected.

There are various modifications of this exercise. For example, a few sheets can have different colored dots representing different STDs that young people might have. Some students' sheets can have a statement that reads, "refuse to shake hands with anyone." This, of course, represents refusing to have sex and these people do not become infected. Similarly, some students can have a different marking on their sheet, indicating they always used condoms consistently and did not become infected.

(Continued)

STD Handshake

(Continued)

Important Considerations in Using It

1. Make sure that the student(s) hypothetically chosen to have an STD are not made uncomfortable by this. If they might be, use peer leaders or others who would not be uncomfortable.

References for Lessons That Describes a Similar Activity More Fully

1. *Making Proud Choices*, Module 5, Activity B: Transmission Game
2. *Reducing the Risk,* Alternative Class 1: HIV Risk Activity
3. *Safer Choices, Level 1,* Class 5A, Activity 1: How Number of Partners Affects STD Risk
4. *SiHLE, Workshop 2,* Activity G: Card Swap Game

Activity 4-3

STD Risks

Description of Activity

Objectives: Students will be able to:

1. Assess the risk of sexually transmitted disease including HIV through different activities

Risk and Protective Factors Affected:

1. Knowledge of how STD/HIV risk associated with different activities
2. Perception of risk of STD/HIV

Activity:

The instructor gives small groups of students 5 x 7 cards with different activities, including sexual activities written on them. Each group decides how risky each activity is and then places the card on the wall along a continuum from "Not at all risky" to "Very risky." After all the cards are placed on the wall, the educator discusses the placement of each card with the entire class and moves the cards as appropriate.

Activities might include no risk activities such as holding hands or sharing eating utensils to low risk activities such as vaginal sex with correct condom use to moderate risk activities such as oral sex to high risk activities such as vaginal or anal sex without condoms.

References for Lessons That Describe a Similar Activity More Fully

1. *Becoming a Responsible Teen,* Session2, Activity 4: HIV Feud
2. *Cuidate!,* Module 4, Activity E: La Zona Religiosa
3. *Making Proud Choices,* Module 2, Activity D: HIV Risk Continuum
4. *Reducing the Risk,* Class 13: Risk Continuum
5. *Safer Choices, Level 1,* Class 5A, Activity 2: Rate the STD Risk
6. *SiHLE, Workshop 2,* Activity I: R U at Risk?
7. *SiHLE, Workshop 3,* Activity D: Luv & Kisses

5 Addressing Attitudes, Values and Beliefs

Keys to Improving Attitudes, Values and Beliefs

Identify exactly which attitudes, values and beliefs regarding teen sexual behavior need to be addressed. Then, get teens to 1) thoughtfully consider relevant information about having sex and using condoms/contraception, 2) have more positive thoughts about not having sex or using condoms/contraception and 3) integrate that information into their existing knowledge base.

Background

This chapter discusses methods of addressing attitudes, values and beliefs. Many theories and bodies of research address this topic. In fact, these theories can be placed on a continuum. Consequently, this chapter is longer and more challenging than most of the other chapters. However, all of the theories provide important perspectives on how to change attitudes, values and beliefs.

Attitudes are positive or negative evaluations that people have toward other people, objects, activities, concepts and many other phenomena. For example, young people most likely have attitudes about a variety of things, including cars, cleaning the bathroom, going to dances, work, English class, the President, chocolate cake and so on.

People who have a "positive attitude" toward some behavior are more likely to engage in that behavior; if they have a "negative attitude" toward something, they are less likely to engage in that behavior.

According to many social psychologists, attitudes have at least two components:

1. A cognitive component, which includes one's *beliefs* about something (e.g., "abstinence from sex prevents pregnancy" or "condoms reduce chances of STD transmission."
2. An affective component, which includes one's *evaluation* of the same thing, implying a liking or disliking or favorable or unfavorable view—e.g., "I like the idea of abstinence so that I don't have to worry about pregnancy" or "I like condoms because they reduce the chances of pregnancy and STD, but I don't like how they feel" (Breckler 1984; Ajzen 1989; Breckler and Wiggins 1989).

These two components mean that people have both thoughts and feelings associated with their attitudes. According to psychologists, individuals differ in terms of the weight they give to their thoughts (cognitive) versus their feelings (affective) in shaping their attitudes. This is partly a function of their general temperament. However, when there is a conflict between thoughts and feelings, feelings generally have a greater role in shaping attitudes (Hall 2008).

For example, when it comes to sex, adolescents' attitudes and decisions are not determined entirely by rational thought. Indeed, their decisions about sex are markedly affected by their feelings such as love, sexual attraction, fear, insecurity and invulnerability, to name a few.

Although attitudes involve likes and dislikes (or favorable or unfavorable assessments), people also can be neutral or ambivalent about some things (i.e., they can simultaneously like and dislike something or favor or disfavor something, or be uncertain of how they feel). And they can have no thoughts or attitudes at all about some things.

Attitudes and beliefs. The distinctions between attitudes and other psychological concepts, such as beliefs and values, are not always clear because they sometimes overlap. In general, attitudes are different from beliefs in that attitudes must include an affective component and beliefs do not (Fishbein and Ajzen 1975; Abelson and Prentice 1989). That is, people can have beliefs about many things, but if those beliefs do not have affective components associated with them, then they are simply beliefs, not attitudes. For example, "to be most effective, condoms should be put on the penis before the penis goes into the vagina" is a belief, but "I do not like condoms because they have to be put on just before intercourse and interrupt the mood" is an attitude.

Attitudes and values. Attitudes also are different from values, although again the distinction is not always clear. Our values are what we consider important or of great worth. Generally, we apply the term "values" to more fundamental things, such as health or freedom, rather than more specific, superficial things, such as history class, cleaning house or chocolate ice cream. Values nevertheless can include a wide variety of items or qualities, such as respect, honesty, caring, meaningful relationships, trust, responsibility, family, education, money, success, freedom, power and citizenship.

Values can serve as guidelines to help us make decisions about larger life choices and individual behaviors. As a general rule, when we act in accordance with our own values, we tend to feel good about ourselves and our actions. When we act in a way that violates our values, we tend to feel bad about ourselves and our actions. Thus, our values affect how we feel about the rightness or wrongness of things. Some psychologists believe that many values are determined rather early in life and may be partly genetically determined (D'Onofrio, Eaves et al. 1999). However, values also evolve as we gain experience during our lifetimes.

Many of the principles for changing attitudes also apply to addressing values and changing beliefs. Thus, most of the remainder of this chapter will talk about attitudes, but also will apply to beliefs and values (to the extent that the latter can be changed).

Impact on behavior. Attitudes, values and beliefs are important because they influence behavior. They play an important role in numerous theories of health behavior, such as the theory of reasoned action (Fishbein and Ajzen 1975) the theory of planned behavior (Ajzen and Madden 1986), social cognitive theory (Bandura 1986) and the information-motivation-behavioral skills model (Fisher and Fisher 1992).

According to Petty, Barden and Wheeler (Petty, Barden et al. 2002), experimental research demonstrates that attitudes are one of the most important theoretical constructs affecting behavior. In many psychological models, attitudes affect intentions, which in turn affect behavior (see Figure 1-1 in Chapter 1).

The impact of attitudes on behavior is determined by several factors:

1. **Direction:** If an attitude toward a behavior is positive, then people are more likely to engage in that behavior; if the attitude is negative, people are less likely to engage in that behavior.
2. **Strength:** If an attitude is stronger, it will have a greater effect on behavior.
3. **Specificity:** If an attitude is more specific, it will have a greater effect on behavior ("I do not like condoms because they reduce sensation" versus "I do not like to use protection against pregnancy or STDs").
4. **Relevance:** If an attitude is more relevant to a person's life and behavior, it will have a greater effect on that behavior.

Theories of Attitude Change

Attitudes sometimes change with new information and experience. They can be influenced by parents, teachers, peers, religion, media, culture and other environmental influences, as well as personal experience.

Theories of attitude change can be used to intentionally change attitudes about many things. However, in the field of public health, they are most commonly used to change attitudes about one or more health behaviors. The examples used hereafter will involve attitudes about health behavior.

Theories of attitude change expanded a few decades ago after health promotion interventions designed to increase knowledge and thereby change behavior failed to have an impact on behavior. Subsequently, researchers and practitioners became more interested in how interventions designed to persuade people to change their behavior actually affected their cognitive processes. Early research studies found that factors thought to influence persuasion had different effects in different situations.

The Elaboration Likelihood Model (ELM) (Petty, Barden et al. 2002) was one of the first models to fully recognize that there are many pathways through which interventions can change attitudes and that these pathways fall along an elaboration continuum. At one end of the continuum are processes that require careful thinking about the arguments in a communication message as a response to that message (high elaboration).[7] This is called the *central route*. At the other end of the continuum are those processes that do not require much or any thinking (low elaboration). This is called the *peripheral route* (see Figure 5-1).

Central route. According to psychologists, the central route involves careful consideration of the information in a message about behavior, compares that information to knowledge already known about that behavior and integrates it. This consideration process generates positive or negative thoughts that affect attitudes and thereby change behavior. For example, new information about the likelihood of unintended pregnancy, if sexually active, may generate positive or negative thoughts about having unprotected sex. Whether the thoughts are positive or negative determines whether the attitude change is positive or negative. The extent to which the thoughts are either *more* positive or negative determines the *amount* of attitude change.

According to Petty et al. (2002), two conditions are necessary for any conscious cognitive processing requiring some effort. First, an individual must be *able* to think about and process the information. This ability may be affected by a variety of factors involving the cognitive development of the individual, the individual's mental state (e.g., in a clear state of mind or under the influence of drugs), the characteristics of the message (e.g., whether the individual can understand the words being used), the control that the individual has over the process (e.g., whether the individual can review material at his/her discretion), the environment (e.g., the existence and magnitude of distractions), the number of times the information is presented and other factors. For example, using understandable language, self-pacing, and removing distractions can increase a person's ability to thoughtfully consider messages.

Figure 5-1

Second, an individual must be *motivated* to think about and process the information. This motivation may be affected by characteristics of the individual (e.g., the general inclination of an individual to think about and process new information); the

7 "Messages" and "arguments" are used somewhat interchangeably in this chapter. However, sometimes "messages" refers to admonitions to engage in particular behavior conducive to public health and "arguments" refers to the reasons to engage in health-promoting behavior and to avoid risk behaviors.

psychological state of the individual at the time of the message (e.g., his/her sense of responsibility for the behaviors related to the arguments); the characteristics of the message (e.g., its relevance to the individual, the newness of the arguments and the ability of the individual to process the message); and the environment (e.g., the extent to which it encourages learning).

Peripheral route. Although thoughtful consideration of the arguments in a message often produces the greatest amount of attitude change, attitudes can be changed or reinforced in a variety of ways without such thoughtful consideration. For example, the advertising and marketing of innumerable products often do not try to get people to think carefully about the advertised product. Instead, these ads simply try to get people to associate unconsciously the products with various desirable qualities (e.g., being sexy, attractive, fun or powerful). In addition, persuasion methods employing classical conditioning get people to associate certain products or events with desirable feelings without ever getting the people involved to think about the products or events. For example, if people commonly engage in some behavior (meeting with colleagues) while they are doing something else that they like (e.g., eating food they like), then they will tend to have positive attitudes toward the first behavior. This is why many business deals are conducted over lunch or dinner.

Other methods of persuasion lie somewhere between the two ends of the "central-peripheral" continuum. For example, statements from "experts" or "role models" may produce acceptance of some idea, product or behavior and require some awareness of the message, but not require critical thinking about the message. If a sports hero or popular person in a school encourages a particular behavior, that encouragement may effectively change attitudes and behavior, even if the endorsement is processed through a more peripheral route without careful examination.

Sometimes endorsements from celebrity figures may be effective, even if the arguments are weak, if the arguments are processed through a more peripheral route and if they are not well examined. However, celebrity endorsements may not be effective if the arguments are weak and they are examined critically through the central route and are rejected.

Although celebrities may get youths' attention, their lifestyles are usually so removed from those of most teens' realities that their endorsements of ideas may have less lasting impact on attitudes than endorsements from people with whom youth can identify more closely, such as peers, parents or role models in their own communities.

Interventions sometimes give multiple reasons to engage or not engage in a behavior. When multiple reasons are given, people are sometimes persuaded simply by the number of arguments rather than the strength of each argument.

Strength of arguments. When arguments are processed through the central route, the stronger or higher quality the message, the greater the impact it will have on the related attitude. According to Petty and Wegner (1998), five characteristics determine the quality and impact of arguments:

1) Likelihood and desirability of outcome: If an argument for a behavior makes a case that a particular outcome is likely and desirable, then it will be stronger than if the outcome is not as likely or desirable.
2) Causality: If an argument for a behavior demonstrates a causal impact on some outcome, then the outcome is considered more likely.
3) Familiarity: If an argument is consistent with the way people view the world, it will be more convincing.
4) Importance: If an argument demonstrates that a behavior will have relevant and important outcomes, it will be scrutinized more carefully and may have a greater impact on attitudes and behavior.
5) Newness: If an argument is new and different, it will have a greater impact on changing an attitude than an argument that has already been heard multiple times and incorporated into an existing attitude.

Although both quality and quantity of arguments are important, it is quality, more than quantity, that matters. Up to a point, additional strong arguments make a stronger case. However, when too many arguments are presented, people may begin to count the arguments and use a more peripheral route than if they carefully analyze each argument and use a more central route (Petty and Wegener 1998). In this situation, additional arguments may diminish the amount of attitudinal change.

To increase the strength of messages about behavior and arguments to support them, both arguments and messages should be pilot tested with the intended audiences. Sometimes, slightly changing them (without diminishing their correctness) or changing how they are presented can improve the extent to which they are thoughtfully considered.

Tailoring. Tailoring refers to adjusting messages to match the particular characteristics of the audience (e.g., their age, gender, race/ethnicity or culture), their needs or their concerns. Tailoring can increase both the ability and the motivation to thoughtfully consider a message (Petty, Barden et al. 2002). It can increase acceptance of a message. For example, behavioral messages for younger youth who are less likely to be sexually active might focus more on abstaining or delaying sex than on condom/contraceptive use, while those for older youth who are more likely to be sexually active might give greater emphasis to the use of protection. Programs for older males might focus more on proper use of condoms while programs for older females might focus more on skills to get their partners to use condoms. Programs for Hispanic youth might give more weight to family values and connection to their families, while those for other racial/ethnic groups might emphasize other values. As another example, if communication messages include pictures, the pictures may need to be adjusted to reflect the characteristics of the targeted groups.

Tailoring also can focus more precisely on those attitudes that need to be changed. For example, some people may have negative attitudes about condoms because of the discomfort of buying them; others may have negative attitudes because of the awkwardness of asking a partner to use them; and others may have negative attitudes because of the reduction in sensation. To meet the concerns of each group, messages designed to change attitudes about condoms may need to be adjusted to meet each of those concerns.

As a final example, stages of change theory stipulates that people often pass through five stages on their way to adopting and maintaining a health behavior (i.e., precontemplation, contemplation, preparation, action and maintenance) (Prochaska, DiClemente et al. 1992). Messages may need to be tailored for each of these stages. For example, if people are at the precontemplation stage, then messages should be designed to get them to think about changing their behavior, whereas if they are in the maintenance stage, then messages should strive to get them to maintain their new positive behavior.

Important characteristics of the source. The amount of attention that people give to a message often depends on various characteristics of the source of the message. For example, people often give more attention to message arguments when they come from a credible, trusted and respected source. They also will give more attention when the sources are familiar and similar to themselves. It is important to note that the expertise of a source has an impact on attitude change only if the recipient knows before the message is received that the speaker is an expert. If the recipients learn this afterward, the expertise of the source has less impact on attitude change.

In addition to the characteristics of the source, the characteristics of the relationship with the source also are important in achieving attitudinal or value change. For example, when people are closely connected to the source (e.g., to parents, educators or friends), they may be more willing to consider the message arguments.

Stages of attitude change. Just as Prochaska's transtheoretical stages of change describes stages in adopting or changing health behaviors, similar theories exist for attitude change. Depending on the

field (e.g., psychology versus marketing), there are different numbers of stages. However, many of them include the following steps during attitude change (McGuire 1999):

1. Being exposed to a message or intervention
2. Paying attention to a message or intervention
3. Comprehending the arguments or message
4. Accepting the argument or message
5. Integrating the argument into existing beliefs
6. Eliciting positive or negative thoughts about the new or revised beliefs
7. Retaining the attitude

These steps in attitude change may take place very quickly, perhaps within minutes or seconds, but are still important because they constitute a set of concerns that each intervention needs to address. That is, the intervention should make sure that the target population is exposed to the message, pays attention to it, comprehends it, accepts it, integrates it, feels good about it and retains it.

Use of fear in messages to change attitudes and values. Although there has been some debate about the impact of fear in messages, there may be a growing consensus about its effects. If messages do not increase fear of possible negative consequences at all, then they may not be effective. If messages increase fear too much without providing a clear method of avoiding the feared outcome, then fear may cause people to ignore the message or to become paralyzed with inaction. What is most effective is a reasonable combination of fear arousal, presented with clear, achievable directions for how to avoid the negative outcome (Witte and Allen 2000).

Use of cognitive dissonance. In psychology, cognitive dissonance is an uncomfortable feeling or stress caused by holding two contradictory attitudes, values or beliefs simultaneously. The theory of cognitive dissonance proposes that people have a natural desire to reduce this dissonance by modifying one or more of the existing attitudes, values or beliefs (Festinger 1957). Thus, one effective way of changing attitudes is to demonstrate that specific attitudes are inconsistent with more fundamental and important values or attitudes, e.g., demonstrating that having unprotected sex is inconsistent with values and goals involving higher education and employment before parenting.

Summary of Principles

- Attitudes that result from thoughtful critical examination of arguments new to an individual tend to be stronger, last longer, be more resistant to change and have a greater impact on behavior than do attitudes that result from little or no thought.
- When people are more able and motivated to consider new arguments, they are more likely to thoughtfully consider them.
- Creating desired environmental conditions (e.g., lack of distractions or disruptions) can increase people's ability to thoughtfully consider new arguments.
- When issues are considered personally relevant, attitudes have a greater impact on behavior.
- When arguments reveal inconsistencies between deeply held attitudes and values on the one hand and behavior on the other, the arguments are more likely to lead to behavior change.
- When arguments are appropriate for the stage of change, they may be more effective.
- Tailoring can increase the ability and motivation to thoughtfully process a message and to accept it. It also can focus more precisely on those attitudes that most need to be changed.
- Including strong arguments in messages is important.
- Both arguments and messages should be pilot tested to see which are strongest for particular groups.
- When arguments are presented by someone with accepted expertise and respect, they are more likely to be considered and accepted.

- When arguments are presented by someone with whom there is a strong connection, the arguments are more likely to be attended to and accepted.
- Messages can still have an impact on attitudes, even if people do not critically examine the arguments but do unconsciously associate the arguments with some desired qualities or outcomes.
- A particularly impactful combination is a strong argument presented clearly and reinforced over time by a respected source with whom there is strong connection.

Applying These Theories and Principles to Teen Attitudes, Values and Beliefs about Sexual Behavior

People commonly associate *values* about abstinence with initiation of sex or number of sexual partners. It is assumed that if youth believe that sex prior to marriage or at a young age is wrong, they are less likely to have sex. Similarly, if youth believe that it is wrong to have sex if they are not in love, this value may affect their number of sexual partners. People also commonly associate *attitude*s about condoms and contraceptive use with use of condoms and contraception.

When applying these concepts about attitudes, values and beliefs to sexual behavior, four questions should be asked:

1. Do teens' attitudes, values and beliefs about sexual and contraceptive behaviors actually affect their own sexual behaviors?
2. Can we change attitudes about sex and condom/contraceptive use?
3. What values, attitudes and beliefs should be encouraged?
4. How do we improve values, attitudes and beliefs toward abstinence, minimizing partners, being faithful and using condoms and other contraceptives?

These questions are answered below.

Do teens' attitudes, values and beliefs about sexual and contraceptive behaviors actually affect their own sexual behaviors?

A review of studies examining the relationship between attitudes, values and beliefs and sexual behavior revealed that at least 14 studies have measured the impact of attitudes, values and beliefs about sex (Table 5-1) (Kirby and Lepore 2007). Ten of the 14 studies found that these attitudes were significantly related to initiation of sex; only four failed to find significant relationships and none found relationships in the unexpected direction. Those attitudes, values and beliefs having a positive impact included less permissive attitudes toward sex, more personal benefits of abstaining from sex and more perceived personal and social benefits than costs of having sex. The failure of four studies (one-third of the total) to find a significant impact of attitudes, values and beliefs may reflect measurement problems, small sample sizes and other methodological problems of the studies. It might indicate that attitudes, values and beliefs about sex are not related to initiation of sex in all groups of teens. Overall, these studies represent strong evidence for the impact of attitudes, values and beliefs about sex on initiation of sex.

Forty-six studies measured the impact of attitudes about condom and contraceptive use on actual

Table 5-1 Number of Studies Reporting Effects of Attitudes About Abstaining on Teens' Own Sexual Behavior

	Later Initiation of Sex	No Significant Effects	Earlier Initiation of Sex
Less permissive attitudes toward sex (N=5)	4	1	0
Personal benefits of abstaining from sex (N=2)	2	0	0
More perceived personal and social benefits than costs of having sex (N=7)	4	3	0

condom and contraceptive use (Table 5-2). The scales include items about condom effectiveness in reducing pregnancy or STD, perceived impact of condom use on sexual pleasure, partner support of condom use, embarrassment using condoms, accessibility of condoms and other attitudes toward condoms and other forms of contraception. Of the 46 studies, 30 found that the attitudes were significantly related to actual condom or contraceptive use, 16 failed to find significant relationships and none found significant relationships in the unexpected direction. As above, the failure of 16 studies (again about one-third of the total) to find significant relationships may reflect methodological limitations or may indicate that attitudes about condoms and contraception are not always related to use of condoms/contraception in all groups of teens.

Although research demonstrates that attitudes are related to sexual behavior, many different attitudes might affect each sexual behavior. Some are more general, some are more specific, and some target different aspects of condom or contraceptive use. Table 5-4 on page 67 lists examples of attitudes that may affect the decision to have sex and to use condoms or contraception. Note the diversity of the attitudes that may apply to a single behavior.

Given this diversity and given that sex education programs cannot address all potentially relevant attitudes, when designing programs, it is very important to determine which attitudes are most important in a given population. The importance of different attitudes can be gleaned from focus groups with youth, interviews with reproductive health professionals working with youth and survey research with the youth being addressed.

Can we change attitudes about sex and condom/contraceptive use?

A review of curriculum-based studies of sex and STD/HIV education programs found that 8 out of 13 programs significantly improved attitudes toward abstinence and 5 had no significant impact (Table 5-3) (Kirby 2007). These studies demonstrate clearly that not all programs significantly improved attitudes, but a majority did so. Ten out of 24 studies improved attitudes towards condoms and contraceptives, 13 had no significant impact and one had a negative impact. These results demonstrate clearly

Table 5-2 Number of Studies Reporting Effects of Attitudes About Condom/Contraceptive Use on Teens' Own Condom/Contraceptive Use

	Increased Condom or Contraceptive Use	No Significant Effects	Decreased Condom or Contraceptive Use
Stronger belief that condoms are effective in reducing pregnancy or STD (N=7)	2	5	0
Stronger belief that condoms do not reduce pleasure (N=8)	7	1	0
Greater value or perception of partner support of condom use (N=6)	4	2	0
More positive attitudes toward condoms and other forms of contraception (N=17)	13	4	0
Decreased embarrassment using condoms (N=6)	3	3	0
Greater perceived accessibility of condoms (N=2)	1	1	0

Table 5-3 Number of Programs Having Effects on Attitudes Toward Sex and Condom/Contraceptive Use

	Had a Positive Effect	No Significant Effects	Had a Negative Effect
Attitudes toward having sex and abstinence (N=13)	8	5	0
Attitudes toward using condoms (N=12)	6	5	1
Belief that condoms are a hassle and reduce pleasure (N=7)	2	5	0
Perceived barriers to using condoms (N=5)	2	3	0

that it is possible to improve these attitudes, but that not all curricula do so.

What values, attitudes and beliefs should be encouraged?

In the United States, teenage sexual behavior is a very divisive topic. That is, different people hold very different values about the conditions under which young people should have sex. Some believe that people should only have sex after they are married; others believe they should only have sex when they have a mature love; others believe it is acceptable for young people to have sex provided it is informed, consensual, non-exploitative, honest and protected against disease and unintended pregnancy (National Guidelines Task Force 2004). These beliefs can be quite strong and are influenced by a variety of factors including family values, participation in communities of faith, instruction from school and other programs, and so on.

Many widely held values could be applied to decisions about whether or not to have sex (e.g., honesty, trust, respect, safety, personal responsibility and virginity until marriage). However, two values—respect for oneself and respect for others—were identified as among the most important and the most widely accepted by a large group of individuals representing diverse views (Center for Excellence for Sexual Health 2008).

Although some people oppose sex outside of marriage and therefore also oppose the encouragement of condom or contraceptive use among teens who are not married, there is general consensus in our society that young people should be encouraged to use condoms and other forms of contraception if they do have sex. This means that positive attitudes towards condoms and other forms of protection should be increased.

In addition to general attitudes, values and beliefs about having sex and using condoms and contraception, interventions may need to address more specific attitudes, values and beliefs about having sex and using condoms/contraception. Many examples are included in Table 5-4 (see page 67).

How do we improve values, attitudes and beliefs toward abstinence, minimizing partners, being faithful and using condoms and other contraceptives?

Given the theories above about how to change attitudes and values, the following general principles should be built into activities to improve attitudes, values and beliefs regarding sexual and condom/contraceptive behavior:

1. Identify specific attitudes, values and beliefs that need to be improved (e.g., by conducting focus groups with youth, interviewing practitioners who work with youth similar to those you are targeting and reviewing research results from similar youth). Try to understand the source or basis of these attitudes and values.
2. Make sure the environment is conducive to the thoughtful consideration of new information (e.g., minimize distractions).
3. Design activities to produce thoughtful critical examination of new arguments and messages by the students (e.g., by using a variety of activities such as short lectures, student summaries of pamphlets or websites, knowledge contests, simulations of important points, worksheets to have them apply concepts to their own lives, and roleplaying to practice and verbalize concepts).
4. Design activities so that students are more able and motivated to thoughtfully consider new arguments (e.g., involve youth in a variety of interactive activities that they can understand).
5. Include strong arguments in the messages; be sure to pilot test to see which arguments have the strongest appeal and impact.
6. Make arguments that are new, strong and personally relevant to the students.
7. Combine appropriate use of fear with a clear message about how to avoid the undesirable outcomes.
8. Associate desirable qualities in people as perceived by the students with desired attitudes or behaviors.

9. As appropriate, use cognitive dissonance to change attitudes by demonstrating that specific attitudes or behaviors to be changed are inconsistent with more fundamental and important values or attitudes.
10. Tailor arguments and activities for the students.
11. Include arguments and activities that are effective with students at different stages of change towards adopting a particular behavior.
12. Have credible, respected and trusted people present the arguments; to the extent appropriate, these people should be similar and familiar to the students.
13. Have people with close connections to the students (e.g., parents or peers) present or reinforce arguments favoring particular behaviors.
14. Repeat and reinforce the arguments and messages in different ways over time.
15. To the extent feasible, make sure that the students are exposed to the message and arguments, pay attention to them, comprehend them, accept them, integrate them, feel good about them and retain them. For example, provide active learning activities in which students have to find, summarize and explain to others the main arguments and messages.
16. Combine the above in particular powerful combinations, e.g., have educators respected by and very close to the students present strong arguments clearly and repeatedly over time and then have students inform others.

Different kinds of activities can be implemented for students at different stages of attitude change. Following are examples of activities for different stages:

Stage 1. To provide exposure to important knowledge or arguments, cover the following topics, among others:

a. Background information about reproduction, STD transmission, risks, etc.
b. Consequences of having sex—pregnancy, STDs and emotional and social consequences
c. Consequences of unplanned pregnancy and STDs
d. Reasons to not have sex (See Activity 5-1: Reasons to Not Have Sex)
e. Personal, family, community and faith community values about sexual behavior among young people (See Activity 5-2: Dreams, Goals and Values)
f. Situations that might lead to undesired or unplanned sex and how to avoid and get out of them (See Activity 7-2: Situations That May Lead to Unwanted or Unintended Sex.)
g. Skills for avoiding undesired or unplanned sex
h. Use of condoms and other forms of contraception
i. Reasons to use protection against pregnancy and STDs, if having sex
j. Skills to obtain, use and insist on the use of condoms/contraception
k. Barriers to using condoms/contraception and methods of overcoming those barriers

Stage 2. To increase attention to a message or intervention:

a. Use activities with vivid visual appeals, e.g., vivid posters, videos and personal testimonies of people who have become unintentionally pregnant or contracted HIV or another STD
b. Use examples of situations or role models that students know or can relate to
c. Provide stories of positive role models on posters or elsewhere
d. Make arguments or examples concrete and clear
e. Use interactive experiential activities, e.g., small-group discussions, simulations, role-playing, student completion of stories about pregnancy risk and STDs and assignments to learn and share information with others

Stage 3. To increase comprehension of the arguments or message:

a. Make arguments concrete and clear
b. Provide familiar examples

c. Use simulations to demonstrate principles (e.g., simulations of chances of becoming pregnant or simulations of how STDs can spread among people) (See activities in Chapter 4)

d. Include activities that allow students to proceed at their own pace (e.g., reading materials or individualized interactive videos or computer games)

e. Include activities in which students must summarize information for others (e.g., summarizing information about different STDs to other students in the class or to friends as a homework assignment) (See Activity 5-1: Addressing Barriers to Using Condoms)

f. Include review activities in different formats (e.g., short lectures, group discussions, and contests/games on the same topics)

Stage 4: To increase acceptance of the argument or message:

a. Same as for stage 3

b. Include sources of information (both people, such as parents and role models, and print) that the students respect, like and feel connected to

c. Combine appropriate amount of fear of negative consequences (see Chapter 4) with a clear message about how to avoid those negative consequences

d. Have students take stands on various issues (See Activity 5-5: Addressing Barriers to Using Condoms, Activity 5-4: "Dear Abby," Activity 5-1: Reasons Not to Have Sex, Activity 5-3: Sexual Values Line)

e. Use cognitive dissonance—show that responsible decisions are consistent with other values and sexual risk behavior is inconsistent with our values

f. Create peer programs for students (the peers selected will increase their own acceptance and their promotion of the arguments will increase acceptance by other students)

g. Include activities in which peers, parents or role models express support for the argument or message

Stage 5. To increase integration of the argument into existing beliefs:

a. Same as for stage 4

b. Include activities in which students are confronted with various scenarios and have to make decisions about what to do (See Activity 5-4: "Dear Abby")

c. Include activities in which students must make personal commitments about what they will and will not do sexually and whether they will consistently use condoms/contraception if they do have sex (See Chapter 9)

Stage 6. To elicit positive or negative thoughts about the new or revised beliefs:

a. Same as for stage 5

b. Include activities in which students must think about the personal consequences of becoming a parent or contracting an incurable STD and the positive feelings of not having to worry about pregnancy and STDs

c. Include activities in which students' decisions are affirmed by others (e.g., by other students or parents or other adults)

Stage 7. To retain the attitude:

a. Include booster sessions in later semesters

b. Implement schoolwide activities that reinforce the message as long as the students remain in school

c. Train some students as peer educators in later semesters

How have attitudes, values and beliefs been measured?

In Table 5-4 are items that have been used to measure adolescents' attitudes, values and beliefs about various sexual health topics. As in previous chapters, these are meant to be illustrative, not comprehensive.

Conclusions

Attitudes play an important role in many cognitive behavioral theories that posit that attitudes affect behavior and that changing attitudes will lead to behavior change. These theories are supported by multiple studies that have demonstrated that attitudes, values and beliefs about having sex or using condoms or other contraceptives are related to actually having sex or using condoms or contraception. In addition, multiple studies have found that programs can change attitudes about sex and using condoms or contraception.

To change attitudes and values, program developers should identify exactly which attitudes, values and beliefs are most important to address for their population. Then, instructional activities should increase the extent to which teens critically assess and integrate new information. They should strive to increase teens' ability and motivation to thoughtfully assess the attitudes and behaviors. Instructional activities should present strong relevant arguments and include interactive activities. They also should strive to generate positive thoughts about protective behaviors and negative thoughts about risk behaviors. If possible, activities should be delivered by people whom the teens like, respect and with whom they are connected.

When instructional activities improve perceptions of peer norms about sex or contraceptive use and increase self-efficacy to avoid undesired sex or to use condoms/contraception, they also can improve attitudes. Improving perceptions of peer norms and self-efficacy are discussed in Chapters 6 and 9 respectively.

Table 5-4 Examples of Survey Items from Research Studies of Attitudes, Values and Beliefs in Different Domains[8]

Each item with a + sign represents a positive perception and a protective factor, while each item with a — sign represents a negative perception and a risk factor. Thus, within each scale, items with a + sign should be scored in the opposite direction of those with a — sign.

Attitudes, Values and Beliefs About Having Sex

Positive or Negative Factor	Attitudes favoring abstinence
+	It is wrong to have sex before marriage or a permanent committed relationship.
+	Having sex before marriage or a permanent committed relationship is against my religious beliefs.
+	Not having sex until marriage or a permanent committed relationship is important to me.
+	Teens would be better off if they said "no" to sex.
+	It is okay for people my age to want to remain abstinent until they get married.
—	It is okay for people my age to have sex.
—	It is okay for people my age to have sex if they are in love.
—	It is okay for people my age to have sex with someone they like, but don't know very well.

Positive or Negative Factor	Perceived costs of having sex and benefits of abstaining from sex
+	I would not have sex now because I'm not ready to have sex.
+	I would not have sex now because it is against my beliefs.
+	I would not have sex now because it is against my parents' values and they would be very upset if they believed I was having sex.
+	I would not have sex now because I do not want to get pregnant.
+	I would not have sex now because I don't want to get HIV or some other STD.
+	I would not have sex now because I don't want to get a bad reputation.
+	If I had sex with a boyfriend or girlfriend, my friends might gossip about me.
+	I would not have sex now because I'm waiting for the right person.
+	I would not have sex now because my friends think it is better to wait to have sex.

Positive or Negative Factor	Perceived costs of having sex and benefits of abstaining from sex *(Continued)*
—	If I want to be popular, I need to go farther than kissing.
—	If I had sex with a boyfriend or girlfriend, it would prove that I love him or her.
—	I would have sex now if someone I cared about pressured me to have sex.
—	I would have sex now to satisfy strong sexual desires.
—	I would have sex now because I want to have a baby.

Positive or Negative Factor	Perceived parental values about having sex
+	My parents think having sex before marriage is wrong.
+	My parents think people my age should wait until they are older to have sex.
+	My parents think I should abstain from sex.
+	My parents would be very upset if they believed that I was having sex.
—	My parents wouldn't care if they found out I was having protected sex.

Positive or Negative Factor	Perceived peer norms about having sex
+	Most of my friends have not had sex.
+	Most of my friends think people my age should wait until they are older before they have sex.
+	Most of my best friends think I should wait to have sex.
—	Most of my friends think having sex while you're in high school is normal.
—	Most of my friends believe it is okay for people my age to have sex.
—	Most of my friends think it is okay to have sex with a steady boyfriend or girlfriend.
—	Most of my friends think it is okay to have sex with a couple of different people each month.

(Continued)

[8] Most of these items are based on actual questions used to measure factors in previous research. These items specify more precisely some of the factors that are related to behavior and can therefore be helpful when designing programs to address the proximal sexual factors. They also can be used to create items for questionnaires in survey research.

Table 5-4 Examples of Survey Items from Research Studies of Attitudes, Values and Beliefs in Different Domains *(Continued)*

Each item with a + sign represents a positive perception and a protective factor, while each item with a — sign represents a negative perception and a risk factor. Thus, within each scale, items with a + sign should be scored in the opposite direction of those with a — sign.

Attitudes, Values and Beliefs About Having Sex *(Continued)*

Positive or Negative Factor	Perceived susceptibility to pregnancy or STD/HIV
+	If I have sex without contraception, I would probably get pregnant (or get someone pregnant).
+	If I have sex without using a condom every time, I might get an STD.
+	If I have sex without using a condom every time, I might get HIV.

Positive or Negative Factor	Perceived consequences of pregnancy and childbearing
+	I am not emotionally ready to be a parent.
+	I am not financially ready to be a parent.
+	Being a teen parent would make it more difficult to finish school.
+	Being a teen parent would keep me from doing many things I like to do.
+	Being a teen parent would really mess up my life.
+	If I got pregnant (or got someone pregnant), I would be very embarrassed.
+	Getting pregnant at this time in my life is one of the worst things that could happen to me.
—	Having a baby to take care of would make me feel loved and needed.
—	If I had a baby, for the first time I would have something that is really mine.
—	If I had a baby, I would never be lonely.
—	If I had a baby, my boyfriend would be more committed to me.
—	If I had a baby, I would feel more like an adult.
—	If I had a baby, I would feel I had done something meaningful in life.
—	My family would help me raise a baby.

Positive or Negative Factor	Perceived consequences of STDs and HIV/AIDS
+	If I got an STD, I would be very embarrassed.
+	If I got an STD, I would hate to have to tell my partner.

Positive or Negative Factor	Perceived consequences of STDs and HIV/AIDS *(Continued)*
+	If I got an incurable STD, it would mess up my life.
+	If I got an incurable STD, I might need to deal with it the rest of my life.
+	If I got an incurable STD, I would worry about infecting others.
—	Getting an STD that is curable is no big deal.
+	Getting HIV would really mess up my life.
+	Getting HIV might mean that I would have to take lots of pills the rest of my life.
+	Getting HIV would prevent me from doing many things I want to do.

Positive or Negative Factor	Motivation to avoid contracting an STD
+	I really want to avoid getting an STD.
+	Not getting an STD is important to me.
—	Getting an STD is not a big deal.
+	My family would be upset if they learned I had an STD.

Positive or Negative Factor	Motivation to avoid pregnancy and childbearing
+	Getting pregnant (or getting someone pregnant) would really mess up my life.
+	My parents would be upset with me if I were to get pregnant (or get someone pregnant).
+	I really don't want to get pregnant (or get someone pregnant).
+	I am really not ready to be a parent.
—	If I get pregnant (or get someone pregnant), it is not a big deal.
—	Sometimes I think I'd like to be pregnant (or get someone pregnant).
—	I'd like to be a mother (or father) right now.

(Continued)

Table 5-4 Examples of Survey Items from Research Studies of Attitudes, Values and Beliefs in Different Domains *(Continued)*

Each item with a + sign represents a positive perception and a protective factor, while each item with a — sign represents a negative perception and a risk factor. Thus, within each scale, items with a + sign should be scored in the opposite direction of those with a — sign.

Attitudes, Values and Beliefs About Using Condoms/Contraception

Positive or Negative Factor	Perceived effectiveness of condoms and contraception
+	If used correctly and consistently, condoms are effective at preventing pregnancy.
+	If used correctly and consistently, contraception such as birth control pills is effective at preventing pregnancy.
+	If used correctly and consistently, condoms are quite effective at preventing some STDs.
+	If used correctly and consistently, condoms are effective at preventing HIV.

Positive or Negative Factor	Personal values, attitudes and beliefs about condoms and contraception
+	I believe condoms should always be used if a person my age is sexually active.
+	I believe contraception should always be used if a person my age is sexually active.
+	I believe that condoms should always be used if a person my age has sex, even if the two people know each other very well.
+	I believe that condoms should always be used if a person my age has sex, even if they are going together.
+	I believe that condoms should always be used if a person my age has sex, even if the girl uses contraception.
+	I believe that another form of contraception should always be used, even if the guy uses a condom.

Positive or Negative Factor	Perceived costs and barriers to using condoms
—	It would be embarrassing to buy a condom in a store.
—	It would be embarrassing to ask my partner to use a condom.
—	I would be afraid my partner would be angry if I asked him/her to use a condom.
—	I am afraid that my sex partner would think I am infected with an STD if I asked him/her to use a condom.
—	Having condoms in case I have sex makes me appear easy.
+	Having condoms in case I have sex makes me feel prepared.
—	When I'm all excited, I don't want to think about using condoms.

Positive or Negative Factor	Perceived costs and barriers to using condoms *(Continued)*
—	Using condoms disrupts the mood.
—	It would be embarrassing to put on a condom.
—	Using condoms is a hassle.
—	Condoms reduce the pleasure of sex.
—	Condoms reduce sensation during sex.
—	Condoms are messy.
—	Condoms create distrust in a relationship.
+	Condoms are comfortable to use.
+	Using condoms can be sexy.
+	Using condoms makes me feel more secure that I will not cause a pregnancy or get an STD.

Positive or Negative Factor	Perceived peer norms about condom or contraceptive use
+	Most of my friends believe condoms should always be used if a person my age has sex.
+	Most of my friends believe condoms should always be used if a person my age has sex, even if the girl uses birth control pills.
+	Most of my friends believe condoms should always be used if a person my age has sex, even if the two people know each other very well.
—	Women who carry condoms are looking for sex.
—	If you tell your partner you want to use a condom, your partner will think you're having sex with other people.
+	Most young people use contraception when they have sex.
—	Very few young people are doing anything to protect themselves against STDs.

Activity 5-1

Reasons to Not Have Sex

Description of Activity

Objectives: Students will be able to:

State and evaluate reasons why young people have sex and do not have sex

Risk and Protective Factors Addressed:

Values and attitudes about having sex

Activity:

The educator writes on the board "Reasons to have sex" and "Reasons to wait" and asks students to suggest reasons young people their age do have sex and reasons they decide not to have sex. The educator writes their reasons in the appropriate column on the wall.

The educator makes sure that all the important reasons not to have sex are included in the list (e.g., might get pregnant, might contract an STD or might upset my parents).

Then the educator asks the students to rate each reason in each column according to whether it is an important and healthy reason or a relatively unimportant and unhealthy reason. When there is general class consensus that a reason is an important and healthy reason, the educator puts a "1" beside it; when there is general class consensus that a reason is not an important and healthy reason, the educator puts a "0" beside it.

As appropriate, the educator points out that many reasons to have sex are not good reasons (e.g., to feel like an adult or to give in to peer pressure) or are short term (e.g., feels good). If needed, the educator points out that the reasons not to have sex can negatively affect their lives for a long time (e.g., becoming parents before they are ready or contracting an STD). At the end, the educator counts the number of "1s" on each list to assess the overall pros and cons of having sex at that time in their lives and emphasizes that there are more important and healthy reasons not to have sex than to have sex at this time.

Important Considerations in Using It

Be sure that as many reasons as possible come from students so that they perceive the lists and conclusions as their ideas rather than as the educator lecturing to them.

References for Lessons That Describe a Similar Activity More Fully

1. *Draw the Line, Grade 7,* Lesson 2, Activity 2.3: Tina and Marco
2. *It's Your Game, Grade 7,* Lesson 9, Activity III: Tina and Marco
3. *It's Your Game, Grade 7,* Lesson 10, Computer-Based Activity: Choosing to Wait
4. *Making Proud Choices,* Module 1, Activity E: Brainstorming About Teens and Sex
5. *Reducing the Risk,* Class 2: Reasons That Many Teens Have Sex
6. *Safer Choices, Level 1,* Class 1, Activity 1: Why Young People Choose to Have or Not Have Sex

Activity 5-2

Dreams, Goals and Values

Description of Activity

Objectives: Students will be able to:

Assess their important values, dreams and goals and whether having sex would be consistent with those dreams and goals

Risk and Protective Factors Addressed:

Values and attitudes about having sex

Activity:

Students individually complete a worksheet in which they rate the importance of many things in their lives (e.g., spending time with friends, having their parents' approval, living according to their religious or personal values, finishing high school, getting a job, traveling, being healthy).

After assessing what is important to them, students review all the things they rated as important and consider whether each of those values, dreams and goals is consistent with having sex, with becoming a parent and with contracting an incurable STD such as herpes or HIV.

The whole class then discusses how having sex and possibly becoming a parent or contracting an STD are inconsistent with their values, dreams and goals.

Important Considerations in Using It

1. This activity may be more effective with females than males.

References for Lessons That Describe a Similar Activity More Fully

1. *It's Your Game, Grade 7,* Lesson 9, Activity IV: Journal
2. *It's Your Game, Grade 7,* Lesson 10, Computer-Based Activity: Choosing to Wait
3. *It's Your Game, Grade 8,* Lesson 3, Computer-Based Activity: On the Air
4. *Making Proud Choices, Module 1,* Activity F: Goals and Dreams Timeline
5. *Making Proud Choices, Module 1,* Activity G: Brainstorming Obstacles to Your Goals and Dreams
6. *Reducing the Risk,* Class 1: Pregnancy Risk Activity
7. *Reducing the Risk,* Alternate Class 1: Personalizing Risks
8. *Reducing the Risk,* Class 12: How HIV Would Change My Life
9. *Safer Choices,* Class 5B, Activity 4: Dealing with a Pregnancy
10. *Safer Choices,* Class 6, Activity 2: Personalizing the Impact
11. *SiHLE, Workshop 1,* Activity J: Thought Works
12. *SiHLE, Workshop 2,* Activity J: Consider This
13. *It's Your Game, Keep It Real* (Risk Avoidance Curriculum), 8th grade

Activity 5-3

Sexual Values Line

Description of Activity

Objectives: Students will be able to:

Express reasons young people should or should not have sex

Risk and Protective Factors Affected:

Values and attitudes about having sex

Activity:

The educator asks students to imagine that they have a brother or sister who is a year younger than themselves and who doesn't know whether to have sex for the first time. He/she is asking you what he/she should do.

After students spend a few minutes writing down what they would tell their brother/sister, they are asked to stand in one corner of the room representing their recommendation that their younger brother/sister have sex at this time in his/her life, at another corner representing their recommendation that their younger brother/sister wait to have sex, or somewhere in between representing their uncertainty.

When standing in locations representing their beliefs, students are asked to voluntarily state why they believe their younger brother/sister should or should not have sex. It is important to have students in different locations express their views.

Important Considerations in Using It

1. This activity may only be effective when a majority of the students believe their brother/sister should not have sex. If the students are older and sexually experienced, the group norm and pressure may be to have sex, rather than not to have sex. Thus, this activity should only be conducted with students who are young enough or sufficiently favorable to abstinence to give strong reasons for waiting until older.
2. Students should not be forced to participate if they are uncomfortable taking a position in the classroom.
3. Sexually active students may use this to give testimony as to why they wish they had waited.

References for Lessons That Describe a Similar Activity More Fully

1. *Reducing the Risk,* Class 11: My Kid Sister

Activity 5-4

"Dear Abby"

Description of Activity

Objectives: Students will be able to:

Make responsible decisions about what young people should do in various potential sexual situations

Risk and Protective Factors Addressed:

Values and attitudes about having sex and using condoms or contraception

Activity:

In small groups, students read letters to "Dear Abby" that depict a variety of dilemmas involving sexual behavior among young people like themselves.

In small groups, the students decide what advice they would give the writer of each letter. Typically, they must decide whether the letter writer should have sex and whether the letter writer should use condoms or contraceptives if she/he does have sex.

After all groups have made decisions about what advice to give the letter writers, they share their letters/scenarios and their advice with the entire class and give their reasons for their advice.

References for Lessons That Describe a Similar Activity More Fully

1. *Making Proud Choices, Module 3,* Activity B: Tell It to Tanisha
2. *It's Your Game, Grade 8,* Lesson 4, Activity II: Talk Show and Discussion

Activity 5-5

Addressing Barriers to Using Condoms

Description of Activity

Objectives: Students will be able to:

Identify barriers to using condoms and suggest methods of overcoming those barriers

Risk and Protective Factors Addressed:

Attitudes about using condoms

Activity:

The educator asks students why some people do not use condoms when they have sex and writes the answers on the board.

The students then brainstorm multiple practical ways of overcoming each of the obstacles. For example, if cost is perceived as a barrier, then the students or educator identify clinics or other places that provide condoms free of charge. If a partner's possible negative reaction is a barrier, identify ways to convince the partner that condoms should be used.

Important Considerations in Using It

This activity can be used in combination with the other examples in this chapter to overcome specific barriers to using condoms (e.g., embarrassment obtaining condoms and possible loss of pleasure).

References for Lessons That Describe a Similar Activity More Fully

1. *Becoming a Responsible Teen,* Session 3, Activity 3: Overcoming Embarrassment About Buying Condoms
2. *Becoming a Responsible Teen,* Session 3, Activity 5: Countering Barriers to Using Condoms
3. *Cuidate!, Module 5,* Activity C: Overcoming Barriers to Condom Use
4. *Cuidate!, Module 5,* Activity D: What Gets in the Way to Caring Behavior
5. *Cuidate!, Module 6,* Activity A: No Hay Razón
6. *It's Your Game, Grade 8,* Lesson 5: Computer-Based Activity: Teens Talk about Reducing the Risk
7. *Making Proud Choices, Module 7,* Activity B: How to Make Condoms Fun and Pleasurable
8. *Making Proud Choices, Module 7,* Activity C: Barriers to Condom Use/Condom Use Pros and Cons
9. *Making Proud Choices, Module 7,* Activity D: "What to Say if My Partner Says…" Excuses Partners Give for Not Using Condoms
10. *Safer Choices, Level 1*, Class 9, Activity 3: Barriers to Using Protection
11. *Safer Choices, Level 2,* Class 7, Activity 4: Challenges and Solutions for Condom Use
12. *SiHLE: Workshop 3,* Activity F: Why Don't People Use Condoms?
13. *SiHLE: Workshop 3,* Activity G: KISS—Keep It Simple Sista!

6 Correcting Perceptions of Peer Norms

Keys to Changing Norms

Identify, model and promote healthy and protective behaviors that are (or can become) the real norm in a given population and, if possible, use evidence (e.g., survey results) to support those norms.

Basic Theories

All of us are affected by our perceptions of what others are doing and our perceptions of what others think we should be doing. For example, when we are in a new situation (e.g., a new event, a new job or a new country), we look around to see how others are behaving and then typically try to behave in a manner consistent with that observed behavior. We do this because we often desire to conform to social norms (standards of acceptable behavior) or because we are explicitly encouraged to do so.

Social norms are created by both actual behavior and beliefs about what that behavior should be. For example, on many highways the speed limit is 65 mph, but a large number of people drive 70 mph. Thus, their behavior creates the norm that it is acceptable to drive 70 mph, even though the speed limit is 65 mph. Furthermore, if you ask people whether it is acceptable to drive 70 mph on the freeway, most will concur that it is acceptable. In contrast, the vast majority of people stop at red lights as required by law and people also state that it is not acceptable to drive through a red light. These examples illustrate that when both behaviors and beliefs about those behaviors are consistent, they can create a social norm.

Norms play an important role in several theories, especially the *theory of reasoned action* and the *theory of planned behavior*, which built on the theory of reasoned action (Fishbein and Ajzen 1975; Ajzen 1985).

In both theories, it is argued that behavior is determined primarily by intention to engage in a specific behavior and that, in turn, intention to engage in the behavior is determined by attitudes and norms related to the behavior. For example, according to the theory of reasoned action, the use of condoms during sex would be determined by intention to use condoms, and, in turn, intention to use condoms would be determined by attitudes toward condoms and perceptions of norms about condom use. The theory of planned behavior built upon this model by recognizing that intention to engage in behavior also is determined by perceived ability to engage in a particular behavior effectively—e.g., perceived ability to insist on and actually use a condom effectively.

Although *social cognitive theory* does not place as much emphasis on the particular term "social norms," it incorporates similar ideas in its constructs.

In particular, it emphasizes that people learn by observing the actions of others and the consequences that then follow those actions (Bandura 1986).

Multiple studies in many fields have revealed that these theories do partially predict behavior. These theories also have been the basis for the development of educational interventions that, in turn, have effectively changed health behavior in a desired manner.

More recently, several theorists have built upon the theories of reasoned action and planned behavior and developed the *social norms approach*. Like the theories of reasoned action and planned behavior, the social norms approach recognizes that people often desire to conform to social norms or feel pressured to conform to them. However, it also recognizes that people's *perceptions of social norms* may differ from actual social norms. This theory posits that people often exaggerate the extent to which others engage in unhealthy or risky behaviors, creating a gap between actual behavior and perceptions of that behavior. For example, studies demonstrate that college students believe that more of their fellow college students drink excessively than actually do so. By correcting the misperception and demonstrating that a majority of people do not engage in a particular unhealthy or risk behavior and thereby reducing that gap, interventions can reduce unhealthy and risk-taking behavior (Berkowitz 2005; Haines, Perkins et al. 2005).

According to Haines and colleagues (2005), there is a growing body of studies demonstrating that the social norms approach has been effective at reducing a variety of risk behaviors, including drinking, smoking and substance abuse. Many of these studies have been conducted in colleges, but some have been conducted in middle schools, high schools and communities (Perkins and Craig 2003). They are often, but not always, applicable to adolescent sexual behavior, as discussed in more detail below.

Applying These Theories to Peer Norms and Teen Sexual Behavior

Peer norms (peer standards of acceptable behavior) are particularly important during adolescence. When applying these theories to peer norms and teen sexual behavior, four questions should be asked.

1. Do teens' perceptions of their peers' norms about sexual behavior and actual sexual behavior affect their own sexual behavior?
2. Is there a gap between perceptions of peer sexual behavior and reality? Do teens believe that more of their friends have sex than actually have sex?
3. Can we change perceptions of peer norms?
4. How do we change perceptions of peer norms?

Do teens' perceptions of their peers' norms about sexual behavior and actual sexual behavior affect their own sexual behavior?

According to the theories discussed above, if teens believe their friends are engaging in sexual activity, they are much more likely to be sexually active themselves. Similarly, if teens believe their friends are using condoms or contraception when they have sexual intercourse, they are more likely to use condoms or contraception themselves. Multiple studies confirm this, providing support for these theories. In a review of 25 studies that measured the impact of perceptions of peer norms about sexual behavior or perceptions of actual peer behavior on teens' own initiation of sexual activity, 24 found that these perceptions of peer norms or behavior were significantly related to teens' initiation of sexual activity (Table 6-1) (Kirby and Lepore 2007). Few other risk or protective factors were so consistently and significantly related to initiation of sexual activity. Similarly, of the 15 studies that examined the impact of perception of peer norms about condom or contraceptive use, 12 found that they were significantly related to actual condom or contraceptive use (Table 6-2) (Kirby and Lepore 2007).

Is there a gap between perceptions of peer sexual behavior and reality? Do teens believe that more of their friends have sex than actually have sex?

According to the social norms approach, such gaps are common. A few quantitative studies also support the existence of gaps, specifically in teens' perceptions of their peers' sexual activity (Kinsman, Romer et al. 1998; Robinson, Telljohann et al. 1999; Bacon, Cleland et al. 2002). In addition, many adults working with youth on reproductive health issues have observed and commented on such gaps, suggesting they may be quite widespread. Teens also may believe that fewer of their friends always use condoms or contraception than actually use condoms or contraception; however, this is less well studied.

Why do teens have distorted views of their peers' sexual behavior? There are several plausible reasons that may vary from one group or community to another:

- Teens who have sex talk about and may exaggerate their sexual activity. Others may suggest they've had sex, even when they haven't. Teens who do not have sex are less likely to talk about their virginity.
- Teens (like all people) tend to remember those behaviors or events that are unusual or vivid, and stories of sexual exploits are sometimes more vivid and memorable than stories of not having sex.
- The media commonly depicts sex among young people.
- Some teens view pornography, either accidentally or on purpose, which often depicts sexual intercourse and rarely depicts condom or contraceptive use.
- Some well-intentioned people (such as educators, guidance counselors and parents) may receive biased information themselves and then become carriers of the misperceptions, unintentionally exaggerating sexual behavior of teens and the consequences of that behavior.

Collectively, the social norms theories as well as empirical evidence suggest that by changing the perceptions of norms and behavior, especially peer norms, programs may change behavior.

Can we change perceptions of peer norms?

Researchers involved with all these theories have produced substantial evidence that it is possible to change perceptions of peer norms in general. In the area of teen sexual behavior, a review of 84 studies of sex and HIV education programs found that a majority of the programs employed one or more of these theories and about 40 percent (16 out of 38 programs) significantly improved perceptions of peer norms (Table 6-3) (Kirby 2007). These studies demonstrate clearly that not all programs significantly changed perceptions of peer norms, but a substantial number of programs did so. Moreover, these studies illustrate it is possible to change perceptions of peer norms about sexual intercourse as well as condom use and overall sexual risk-taking.

Table 6-1 Number of Studies Reporting Effects of Peer Norms About Sex on Teens' Own Sexual Behavior

	Later Initiation of Sex	No Significant Relationship	Earlier Initiation of Sex
Believed peers engaged in sexual activity or had permissive attitudes toward sexual activity (N=25)	0	1	24

Table 6-2 Number of Studies Reporting Effects of Peer Norms About Condom/Contraceptive Use on Teens' Own Condom/Contraceptive Use

	Increased Use of Condoms or Other Contraceptives	No Significant Relationship	Reduced Use of Condoms or Other Contraceptives
Believed peers used condoms or had positive norms about condom or contraceptive use (N=15)	12	3	0

How do we change perceptions of peer norms?

All these theories suggest that people's perceptions of norms are affected by their observations of others and by other kinds of evidence about norms (e.g., survey-based research of norms or behavior). Thus, perceptions of norms may be improved through the following kinds of activities, among others:

- Presenting credible research-based evidence describing both actual behavior and expressed norms about that behavior through:
  - o Nationwide, community, or school-wide surveys with results reported through class discussions, posters, short articles or advertisements in school newspapers
  - o In-class questionnaires with results presented and discussed in class (See Activity 6-1: Conducting In-Class Surveys) (These data tend to resonate more effectively with teens than statewide or national surveys.)
  - o In-class, forced-choice voting activities with discussions of reasons why teens chose to avoid sex or insist on using protection
- Modeling desired behavior through:
  - o Videos or acted dramas that portray teens avoiding undesired or unintended sexual activity or using protection against STDs and pregnancy in a way that makes such behavior seem to be a realistic and popular option
  - o Oral, written or visual testimonials modeling either abstinence or use of protection (e.g., calendars with role model stories and pictures of representative teens or testimonials by peer leaders)
  - o Peer discussions of sexual behavior in which youth reach conclusions supporting desired norms (e.g., how to avoid situations that might lead to sexual activity, how to respond to pressure lines to engage in sexual activity, how to insist on using condoms or other forms of contraception or where to obtain condoms without embarrassment) (See activities in Chapter 7)
  - o Roleplaying activities in which teens themselves practice in small groups refusing undesired sexual activity or insisting on using condoms or contraception (See activities in Chapter 7)
- Engaging in part of the desired behavior in a safe context through:
  - o Visits to drug stores or clinics with peers to learn about the availability, location, and types of condoms or contraceptives (if the program is designed to increase condom or contraceptive use) (See Activity 5-5: Addressing Barriers to Using Condoms)

Table 6-3 Number of Programs Having Effects on Perceptions of Peer Norms or Behavior

Perceptions of Peer Values and Behavior	Had a Positive Effect	No Significant Effects	Had a Negative Effect
Regarding sex behavior (N=23)	9	13	1
Regarding use of condoms (N=10)	4	6	0
Regarding avoiding risk of pregnancy or STD (N=5)	3	2	0
Total	16	21	1

When educators use these strategies to convince youth that their peers have particular norms, the messages they give are called "normative messages." Different studies have identified different characteristics of normative messages that they believed were important. These characteristics sometimes depended on the methods they were using to change social norms. In general, normative messages should:

1. Be based on credible evidence (e.g., local questionnaires completed by the teens themselves or other data from credible sources)
2. Be communicated by individuals, groups or organizations that are perceived by youth to be credible

3. Use concepts, language, symbols, pictures or people that are
   a. realistic and appropriate to the audience (including the diversity of youth being targeted)
   b. clear
   c. appealing, persuasive and forceful
   d. empowering (e.g., should encourage youth to act on their own behalf and to take control of their sexual behavior)
4. Include messages about both actual behaviors and beliefs or norms about behavior—e.g., "7 out of 10 teens do not have sex and 8 out of 10 believe that not having sex is the best choice for young people their age"
5. Focus on the positive as opposed to the negative in terms of sexual risk—e.g "7 out of 10 teens do not have sexual intercourse" as opposed to "3 out of 10 teens do have sexual intercourse"

Important Steps in Using the Social Norms Approach

Properly using the social norms approach and establishing a gap requires collecting data on actual norms and perceptions and then comparing them.

Michael Haines and his colleagues (2005) recommend several generic steps that can be applied to completing this process for sexual behavior:

1. Conduct a representative survey of the school (or other youth population) or use existing survey results, analyze results and confirm that a gap exists.

   Measure:

   a. Actual sexual and contraceptive behavior (e.g., "Have you ever had sex?" "Have you had sex in the last 3 months?" "If you have had sex, how often do you use condoms or contraception?")
   b. Perceptions of friends' behavior or perceptions of a larger defined peer group such as same-grade students (e.g., "How many of your friends (or students in your 9th grade) have ever had sex?" "If your friends have had sex, how often do they use condoms or contraception?")
   c. Teens' own beliefs (e.g., "Do you agree or disagree with the following statements: It is wrong for teens my age to have sex. Teens my age should wait until they are older to have sex. If teens my age have sex, they should always use condoms or contraception.")
   d. Teens' perceptions of their friends' (or larger peer groups') beliefs (e.g., "Do you agree or disagree with the following statements: My friends think it is wrong for teens my age to have sex. My friends think teens my age should wait until they are older to have sex. My friends think that if teens my age have sex, they should always use condoms or contraception.")
   e. Reasons why they do not have sex, or reasons why they use condoms or contraception if they do have sex
   f. Protective behaviors or ways to avoid sex or to insist on using condoms or contraception (e.g., "What have you done to avoid undesired sex? What have you done to make sure that you used condoms or contraception if you had sex?")

   Be sure to ask necessary questions for some results to be positive. For example, if a majority of students in a high school have had sexual intercourse, then a question about ever having had sexual intercourse should be asked of freshmen who are less likely to have had sexual intercourse, or a question should be asked about having sexual intercourse in the last 3 months, about use of condoms or contraception, or about beliefs about use of condoms or contraception—all of which might reveal more positive results to report.

   Be sure to report results by gender, age or class, if needed. For example, if female students are less likely to have had sexual intercourse, provide results for males and females separately so that females do not believe that the norm is for females to have sex. When younger students or students in lower grades are less likely to have had

sex, report their results so that they do not believe that students their age are as likely to have had sex as seniors.

In addition, even when a majority or peers has engaged in some unhealthy behavior, their *attitudes* about that behavior might be more protective, and thus a better candidate for publicizing this norm.

Assess gaps between actual behavior and perceived behavior and between actual beliefs and perceived beliefs. Report on reasons why youth do not engage in sexual activity (or always use condoms or contraception) and strategies they use to avoid engaging in sexual activity (or always use condoms and contraception).

2. Target appropriate people with the survey results. Certainly they include peers, but they may also include teachers, parents and others who might pass on incorrect perceptions about teen sexual behavior.
3. Develop and pilot-test messages, materials, and activities before using them. Include as many of the desirable characteristics of messages described above as appropriate.
4. Use in-class activities, posters, school newspaper articles and the Internet to transmit credible normative messages based on the research. If appropriate, also use peer educators, teachers, parents and others who are credible to convey the messages.
5. Change messages and activities periodically to avoid habituation.

How has perception of peer norms been measured?

In Table 6-4 are illustrative items that have been used to measure adolescents' perceptions of peer norms. They may help curriculum developers identify more specific elements that programs and their associated research have addressed and help researchers conduct formative evaluations.

Conclusions

Multiple studies have consistently demonstrated that teen perceptions of their peers' norms about sexual activity and condom or contraceptive use do affect their own sexual and contraceptive behavior. A few studies have demonstrated that sometimes, but not always, there is a gap between actual peer norms and behavior and teens' perceptions of those norms and behavior. The social norms approach and studies in other health areas have demonstrated that changing teen perceptions of peer norms and reducing that gap (if it exists) can reduce risk behavior. In addition, studies have demonstrated that multiple programs have both changed peer norms about having sexual intercourse and about condom and contraceptive use and also changed sexual and condom and contraceptive behavior. The most common types of activities used to address perceptions of peer norms include modeling desired norms through a variety of mechanisms and conducting polls to present data that help counter incorrect perceptions of norms.

Table 6-4 Examples of Items That Have Been Used to Measure Perceptions of Peer Norms[9]

Each item with a + sign represents a positive per norm and a protective factor, while each item with a − sign represents a negative peer norm and a risk factor. Thus, within each scale, items with a + sign should be scored in the opposite direction of those with a − sign.

Positive or Negative Factor	Perceived peer norms about having sex
+	Most of my friends have not had sex.
+	Most of my friends think people my age should wait until they are older before they have sex.
+	Most of my best friends think I should wait to have sex.
−	Most of my friends believe it's okay for people my age to have sex.
−	Most of my friends think it's okay to have sex with a steady boyfriend or girlfriend.
−	Most of my friends think it's okay to have sex with a couple of different people each month.

Positive or Negative Factor	Perceived peer norms about condom or contraceptive use
+	Most of my friends believe condoms should always be used if a person my age has sex.
+	Most of my friends believe condoms should always be used if a person my age has sex, even if the girl uses birth control pills.
+	Most of my friends believe condoms should always be used if a person my age has sex, even if the two people know each other very well.
+	Most young people use contraception when they have sex.
−	Very few young people are doing anything to protect themselves against STDs.

9 Most of these items are based on actual factors that are related to behavior questions used to measure factors in previous research. These items specify more precisely some of the factors that are related to behavior and can therefore be helpful when designing programs to address the proximal sexual factors. They also can be used to create items for questionnaires in survey research.

Activity 6-1

Conducting In-Class Surveys to Change Perceptions of Peer Norms

Description of Activity

Objectives: Students will be able to:

Recognize that their peers believe that not having sex or using protection if having sex is the best option for themselves

Risk and Protective Factors Affected:

Perception of peer norms about having sex or using condoms or other forms of contraception

Activity:

Students vote anonymously for what choice is the best for themselves: not to have sexual intercourse at that time; to have sexual intercourse and always use protection against pregnancy and STDs; or to have unprotected sexual intercourse. The anonymity of the voting can be maintained by having students go individually to a corner of the room, selecting one of three colored chips and placing them in a container. After everyone has voted, the votes are read out loud one at a time and tallied on a bar graph at the front of the room. After all votes are tallied, the educator summarizes the results and makes a statement about what the students in the room believe are the best choices for themselves.

Important Considerations in Using It

This activity should be completed near the end of the unit when students are less likely to choose having unprotected sexual intercourse as the best option for themselves. In addition, it should only be completed in classes where few students will choose having unprotected sexual intercourse as the best option for themselves. If many students do vote for unprotected sexual intercourse, then reasons why they might have done this should be discussed and the importance of avoiding unprotected sex should be emphasized.

References for Lessons That Describe a Similar Activity More Fully

1. *Safer Choices, Level 2,* Class 10: Making a Commitment

7 Increasing Self-Efficacy and Skills

Keys to Increasing Self-Efficacy and Skills

Divide skills into small steps and provide sufficient modeling and practice to ensure mastery of each step.

Basic Theories

Simply put, if people think they can do something well, they are more likely to try to do it than if they do not think they can do it well. And, of course, if people actually can do something well, they are more likely to believe that they can do it well. These are the basic ideas underlying interventions designed to increase self-efficacy.

Dr. Albert Bandura is the psychologist most commonly associated with promoting the importance of self-efficacy in human behavior (Bandura 1986; Bandura 1994). Self-efficacy is a central component in the theory he developed, originally called "social learning theory" and later revised and called "social cognitive theory."

Self-efficacy is people's judgment or confidence in their ability to perform particular skills or behaviors well. People with high self-efficacy believe they can perform behaviors well enough to achieve a goal; as a result, they have more confidence and are more likely to try to perform the behavior or achieve the goal. Conversely, if they have low self-efficacy, they have less confidence in their ability and are less likely to try the behavior or succeed in achieving the goal.

Self-efficacy is different from self-esteem. The latter reflects a person's overall evaluation or appraisal of his or her own worth, as opposed to a person's confidence in performing specific tasks.

According to Bandura, there are four primary methods of increasing self-efficacy.

1. **Mastery Experiences.** If people succeed, their self-efficacy increases; if they fail, it decreases, especially if they fail before their sense of efficacy is well established.

   Increases in self-efficacy also may be roughly proportional to the difficulty of the task accomplished. If people experience only easy successes, their self-efficacy will be strengthened, but not by as much as it will by occasional challenges that require real effort and perseverance and ultimately lead to success. That is, some adversity and even temporary failures can strengthen self-efficacy if there is ultimate success.

   The converse is that failure decreases self-efficacy. Failure is especially likely to decrease self-efficacy if 1) people have a low self-efficacy to begin with and this failure simply reinforces that low self-efficacy or 2) people really try their best and

persevere, but, nevertheless, ultimately fail. Thus, the task should not be too difficult.

Mastery experiences are the most effective approach towards increasing self-efficacy.

2. **Vicarious Experiences.** When people see other people succeed in some sustained effort, then their own confidence in succeeding at the same behavior also is increased. Conversely, if people see others fail, their self-efficacy is diminished.

   The impact of these vicarious experiences is enhanced when people's success is acknowledged favorably by others. If not acknowledged or if acknowledged unfavorably, the impact is less positive.

   The impact of these vicarious experiences also is determined by the extent to which the observers perceive those people modeling the behavior to be like themselves. If the observers view those engaging in behavior as being very similar to themselves, the success or failure of those modeling the behavior will have a greater impact on the observers' self-efficacy.

   Sometimes people's perceptions of others are not accurate. They may perceive themselves as similar to someone else who is very skilled at some task and models behavior well and then they set themselves up for failure when they cannot perform as well.

   When people model successful behavior, they not only directly increase the self-efficacy of others by showing that success in some endeavor can be achieved, they also increase the self-efficacy of others by demonstrating exactly how success can be achieved—that is, by demonstrating the specific skills needed to succeed.

   People also compare their own performances to those of others. If they perceive they perform better than others, their efficacy goes up; if they perceive they perform worse than others, their efficacy drops.

3. **Verbal and Social Persuasion.** When people convince others verbally that they can achieve something, then the self-efficacy of the latter group is increased.

   The impact of social persuasion on self-efficacy is highly related to whether or not mastery occurs. When social persuasion encourages people to try hard at something and they ultimately succeed, then social persuasion is accompanied by mastery and self-efficacy is especially strengthened. When social persuasion encourages people to try to achieve something, but they fail, then the initial unrealistic boosts in self-efficacy produced by the social persuasion are greatly diminished.

   If social persuasion is negative and discourages people from trying very hard and as a result they do not try hard and fail, then this negative social persuasion may have a particularly negative impact on self-efficacy.

   Given the interaction between social persuasion and either mastery or failure, people trying to increase self-efficacy should ideally do more than simply persuade; they also should structure situations so that the people being persuaded achieve mastery and succeed in their efforts. One of many ways to do this is to demonstrate their success by measuring and showing their self-improvement rather than exposing them to possible failure through competition with others.

   People trying to persuade others will be more effective if they are credible. They may be particularly effective if they are a significant other, such as a friend, family member, partner, or teacher.

   In addition, if persuaders encourage others to do things and they succeed, then both the credibility of the persuaders and the self-efficacy of those being persuaded is enhanced. And, of course, the converse is true. If persuaders try to convince others that they can do something and they fail, then both credibility and self-efficacy are diminished.

4. **Physical and Emotional Reactions.** People sometimes have negative physical and emotional reactions associated with a particular behavior or situation (e.g., stress or nervousness). These negative reactions may reduce self-efficacy to complete that activity successfully. Improving these physiological and emotional responses can improve self-efficacy. For example, people may feel anxiety speaking in front of others and these negative

feelings may reduce their self-efficacy to speak publicly. If their anxiety is reduced, then their self-efficacy and chances of success may increase.

Applying These Theories to Teen Self-Efficacy and Sexual Behavior

In order to avoid undesired or unprotected sexual activity, pregnancy and STD, youth need at least five distinct skills. These include the ability to:

1. Avoid situations that might lead to undesired, unintended, or unprotected sexual activity
2. Refrain from and refuse undesired, unintended or unprotected sexual activity
3. Obtain condoms or other forms of contraception
4. Insist on using condoms or other forms of contraception, if having sexual activity
5. Actually use condoms or other forms of contraception effectively, if having sexual activity

When applying Bandura's theories on self-efficacy to teen sexual behavior, three questions should be asked.

1. Does teens' self-efficacy to engage in these five behaviors affect their own sexual and contraceptive behaviors?
2. Can we increase self-efficacy?
3. How do we increase self-efficacy and improve skills?

Does teens' self-efficacy to engage in these five behaviors affect their own sexual and contraceptive behaviors?

According to social cognitive theory, if teens have greater self-efficacy to perform the five specific skills above, they will be more likely to use them to avoid undesired or unintended sex or to use condoms or other forms of contraceptives if they do have sex.

Multiple studies confirm this basic component of social cognitive theory. A review of many studies of risk and protective factors of teen sexual behavior revealed that of the nine studies that measured the impact of self-efficacy to refrain from sex on actual initiation of sex, five found that self-efficacy to refrain from sex was significantly related to delayed initiation of sex (Table 7-1) (Kirby and Lepore 2007). None of the studies found that it hastened the initiation of sex. The fact that four of the nine studies failed to find a significant relationship between self-efficacy to refrain from sex and actual sexual behavior may reflect measurement problems, small sample sizes, ceiling effects (youth sometimes rate themselves high on self-efficacy when they have not been in the situations needing the skill) and other methodological problems. Or perhaps it may indicate that self-efficacy is, in fact, not related to initiation of sex in all groups of teens. It also should be noted that the review of studies did not distinguish between the ability to avoid situations that might lead to sex and the ability to refrain from sex or refuse sex.

Only three studies measured the impact of self-efficacy to insist on condom use on actual condom use; all three found positive effects (Table 7-2) (Kirby and Lepore 2007). Although this is a small number of studies, the consistency of the results

Table 7-1 Number of Studies Reporting Effects of Self-Efficacy to Refrain from Sex on Teens' Own Sexual Behavior

	Later Initiation of Sex	No Significant Effects	Earlier Initiation of Sex
Self-efficacy to refrain from sex (N=9)	5	4	0

Table 7-2 Number of Studies Reporting Effects of Self-Efficacy to Insist on Condom/ Contraceptive Use on Teens' Own Condom/ Contraceptive Use

	Increased Use of Condoms or Other Contraceptives	No Significant Effects	Reduced Use of Condoms or Other Contraceptives
Self-efficacy to insist on condom or contraceptive use (N=3)	3	0	0

suggests this may be an important factor for multiple groups of teens.

Finally, 14 studies measured the impact of self-efficacy to use condoms on actual condom use; 13 of the 14 studies found that it increased actual condom use (Table 7-3). This is very strong and consistent evidence that self-efficacy to use condoms does increase actual condom use for most groups of teens. Few other risk or protective factors were so consistently and significantly related to condom use. Notably, in these studies, the assessment of self-efficacy to use condoms or contraception included self-efficacy to obtain condoms or contraception.

Can we increase self-efficacy?

A review of studies of sexual behavior and HIV education programs found that out of 43 attempts to increase self-efficacy in different areas, programs significantly increased self-efficacy or skills in 23 (or about half) of them (Table 7-4) (Kirby 2007). These studies demonstrate clearly that not all programs significantly increase self-efficacy, but a majority does so. Moreover, it is possible to increase self-efficacy to refuse sexual activity, to use condoms or contraception and to avoid STD/HIV risk behaviors more generally.

The review did not distinguish between self-efficacy to avoid situations that might lead to undesired, unintended or unprotected sex and self-efficacy to refuse sexual activity. However, half the programs (7 out of 14) increased self-efficacy to refuse sexual activity.

Only two studies measured impact on ability to obtain condoms and one of these increased self-efficacy to obtain condoms. Even with a small sample size, this suggests that it is at least possible to increase self-efficacy to obtain condoms.

Thirteen studies measured program impact on self-efficacy to use condoms and a majority (8 out of 13) increased that self-efficacy, indicating that programs can increase self-efficacy to use condoms given current curriculum activities. Only two studies measured impact on skills to use condoms properly and one study was effective.

Table 7-3 Number of Studies Reporting Effects of Self-Efficacy to Actually Use Condoms or Contraceptives on Teens' Own Condom or Contraceptive Use

	Increased Use of Condoms or Other Contraceptives	No Significant Effects	Reduced Use of Condoms or Other Contraceptives
Self-efficacy to actually use condoms or contraceptives (N=14)	13	1	0

Table 7-4 Number of Programs Having Effects on Self-Efficacy and Skills to Perform Protective Behaviors

Self-efficacy and skills	Had a Positive Effect	No Significant Effects	Had a Negative Effect
Self-efficacy to refuse sex (N=14)	7	7	0
Self-efficacy to obtain condoms (N=2)	1	1	0
Self-efficacy to use condoms (N=13)	8	5	0
Condom use skills (N=2)	1	1	0
Self-efficacy to avoid STD/HIV risk and risk behaviors (e.g., to engage in sexual activities or engage in unprotected sex) (N=12)	6	5	1
Total	23	19	1

How do we increase self-efficacy and improve skills?

Given Bandura's theory on improving self-efficacy, the following general principles should be built into activities to increase self-efficacy and skills among teens.

1. If appropriate, activities should use more than one method to increase teens' self-efficacy (mastery, vicarious experiences, social persuasion and improvements in physical and emotional associations).
2. Activities should first increase teens' self-efficacy through practice of skills that teens will learn more easily. Activities should then make the

situations more difficult so that the behavior is more challenging, but not so difficult that likely failure will reduce self-confidence. For example, a refusal skill should be broken into simpler steps which are then taught in sequence or a verbal skill activity should start with scripted roleplays and then move to unscripted roleplays.

3. Skills should be modeled, both to demonstrate to teens that success is possible and to demonstrate the specific skills needed to achieve success.
4. People who model the skills or behavior should be credible and as similar as possible to the teens. Teachers are credible; other peers in a classroom may resemble the students. Using a combination of both can be effective.
5. Educators, especially peer educators, should be properly trained so that they model skills correctly.
6. Educators or other people trying to persuade the teens that they can complete specified behaviors successfully should use praise and encouragement to prompt students with new skills. They should also be credible to teens.
7. Activities should be structured so that in the end, teens do not fail. Teens should not be encouraged to learn skills they cannot perform. Thus, the skills taught should be appropriate for the age and maturity of the students. Educators should assess the teens' current skill level and then proceed in small steps.
8. To the extent feasible, activities should create positive physical and emotional associations with behavior and diminish negative ones. For example, everything reasonable should be done to make students comfortable when they practice refusal skills or observe educators putting condoms over their fingers. If condoms are touched by students, they should not be lubricated so that they do not feel "gross."

Self-efficacy to avoid situations that might lead to undesired sex. The ability to avoid situations that might lead to unintended sex, such as drinking alcohol at unsupervised parties in people's homes, involves:

1. Recognizing ahead of time the kinds of situations that might lead to unintended or undesired sex.
2. Knowing strategies for avoiding those situations (e.g., refusing to go to such parties, refusing to drink at them or forming an alliance with a friend not to leave the main party for an empty bedroom).
3. Having the skills to implement one or more of these strategies (e.g., to refuse to go to the party, refuse to drink, or refuse to leave the party for an empty bedroom).

The ability to recognize situations that might lead to undesired sexual activity and planning strategies to avoid them can be increased by having teens describe the most common situations that they hear about that might lead to undesired sex and then having them brainstorm strategies for avoiding them (see Activity 7-2: Situations That May Lead to Unwanted or Unintended Sex). Their suggestions for strategies can be both creative and effective. Expression by peers of those strategies may also confirm a peer norm that teens should not participate in situations that might lead to undesired sexual activity.

Self-efficacy to refuse to be in situations that might lead to sex, to refuse to have sex or to insist on using condoms or contraception if having sexual intercourse. The abilities to refuse to be in situations that might lead to sex; to refuse undesired, unintended or unprotected sex; and to insist on using condoms or contraception all inherently involve communication with a partner. By far the most common method for increasing these skills is roleplaying (see Activity 7-3: Roleplaying to Enhance Refusal Skills). Remarkably, if conducted properly, roleplaying in small groups can involve all four methods of increasing self-efficacy. Roleplaying can create mastery of the needed skills; as teens observe their peers practicing the skills, they can learn vicariously; the teacher, peer educators or other peers can verbally persuade them that they can use these skills in the roleplay and use them in actual situations; and finally, repeatedly practicing particular skills in small groups of peers can reduce possible

negative physical and emotional reactions associated with those behaviors.

When using roleplays, several steps should be followed to maximize improvement in self-efficacy:

1. Clearly describe the components of the skills.
2. Model the skills in a roleplay.
3. Provide individual practice through roleplays in groups of two to four in which everyone practices (e.g., telling a partner a personal limit, avoiding or refusing undesired sex or insisting on using condoms).
4. Start the roleplays with a plausible scenario for the youth and then follow the scenario with a fully scripted roleplay in which both actors (the person pressuring to have sex and the person resisting having sex) simply read scripts.
5. During the roleplays in small groups, have observers in each group use a checklist to see if the important components of effective skills are employed.
6. Repeat the roleplay practice with different scenarios until teens master the skills.
7. Start with easier situations and move to increasingly difficult situations.
8. Move from scripts with lines for both people in the roleplay to scripts in which the person pressuring to have sex reads his/her lines, while the person resisting has to create his/her own responses.

In the roleplaying activities that involve refusing to be in situations that might lead to sex or refusing to have sex, several elements of effective refusals are commonly taught:

- Saying "no"
- Repeating the refusal
- Explaining why
- Using direct words
- Using proper body language
- Using a clear, confident voice
- Being assertive (saying what you think, how you feel or what you want without hurting the other person)
- Looking the other person directly in the eyes
- Using delaying tactics
- Changing the topic
- Suggesting an alternative
- Showing the partner you care and building the relationship
- Walking away, if necessary

While roleplaying practice may be designed primarily to increase self-efficacy and skills, when youth continually see other youth like themselves successfully avoiding situations that might lead to sex, refusing undesired sex or insisting on using condoms, these roleplays also may improve their perceptions of peer norms about the acceptance of avoiding undesired sex or using condoms.

Self-efficacy to obtain condoms and contraception. To increase self-efficacy to obtain condoms or other forms of contraception, teens can identify stores or clinics that provide condoms and contraceptives and "investigate" each source, assessing the ease of getting there, comfort of being there, cost, etc. (see Activity 5-5: Addressing Barriers to Using Condoms). And finally, teens can actually go to one or more location in small groups, find and assess condoms in the store, or interview clinic staff about obtaining contraceptives. These activities involve mastery of some of the steps needed to obtain condoms or contraceptives, as well as modeling and possible persuasion. They also may reduce anxiety about obtaining condoms or contraceptives.

Self-efficacy to use condoms correctly. At least two activities have been commonly implemented to increase the ability to use condoms correctly. In the first activity, teachers first demonstrate how to use a condom properly and then give condoms to students to practice the same behaviors individually (see Activity 7-5: Using Condoms Correctly).

In the second activity, each of the steps for using condoms is correctly written on a separate sheet of

paper (e.g., the air should be squeezed out of the reservoir tip before putting the condom on) and students, holding these sheets of paper, arrange themselves in correct chronological order. The first team to arrange themselves in the proper order wins the contest (see Activity 7-4: Condom Line-Up). This activity is used when state regulations or community values might prevent the use of the first activity.

How has self-efficacy been measured?

In Table 7-5 are items that have been used to measure adolescents' self-efficacy to abstain from sexual activity or to use condoms or contraception. Once again, they are illustrative, not comprehensive.

Table 7-5 Examples of Items That Have Been Used to Measure Self-Efficacy[10]

Each item with a + sign represents a positive perception and a protective factor, while each item with a — sign represents a negative perception and a risk factor. Thus, within each scale, items with a + sign should be scored in the opposite direction of those with a — sign.

Positive or Negative Factor	Self-efficacy to abstain from sex
+	I have the ability to abstain from sex until married.
+	I can abstain from sex until I'm finished with high school.
+	My boy/girlfriend cannot pressure me into having sex.
+	My friends will not pressure me into having sex.
+	If someone I liked a lot wanted me to have sex, I am sure I could say "no."
+	If someone I liked a lot wanted me to have sex, I am sure I could say "no" without hurting his/her feelings.
+	If someone I liked a lot wanted me to have sex and threatened to break up with me unless I had sex, I am sure I could say "no."
+	If someone I liked a lot wanted me to have sex and I had been drinking alcohol, I am sure I could say "no."

Positive or Negative Factor	Perceived self-efficacy in using condoms or contraception
+	It would not be too hard for me to buy condoms.
+	It would not be too hard for me to carry a condom and have it with me if I needed it.
+	If I decided to have sex with someone, I am sure that I could talk to my partner about using condoms.
+	If I decided to have sex with someone, I am sure that I could get my partner to agree to use condoms.
+	If I decided to have sex with someone but did not have a condom, I am sure that I could stop myself from having sex until I got a condom.
+	If my partner refused to use condoms, I could refuse to have sex.
+	If I decided to have sex with someone but did not have any form of contraception, I am sure that I could stop myself from having sex until one of us could get an effective method of contraception.
+	I am sure that I could use a condom correctly.
+	I am sure that I could use a condom correctly even when highly aroused.
+	I am sure that I could use a condom correctly every time I have sex.
+	I am sure that I could use a condom every time, even with my girl/boyfriend.
+	I am sure that I could use a condom even if I had drunk alcohol or used drugs.
+	I am sure that I could use or take contraception consistently and correctly.

Positive or Negative Factor	Perceived self-efficacy in using condoms or contraception *(Continued)*

[10] Most of these items are based on actual questions used to measure factors in previous research. These items specify more precisely some of the factors that are related to behavior and can therefore be helpful when designing programs to address the proximal sexual factors. They also can be used to create items for questionnaires in survey research.

Conclusions

Multiple studies have demonstrated that teens' self-efficacy to refuse sex or to use condoms or other contraceptives is related to their actually avoiding sexual activity or using condoms or contraception. In addition, multiple studies have found that programs can increase self-efficacy to refuse sex and to use condoms. They also have increased self-efficacy to avoid STD/HIV risk and risk behaviors. Many of the activities that were used effectively in studies incorporated important principles gleaned from Bandura's social cognitive theory.

Activity 7-1

Lines That People Use to Pressure Someone to Have Sex

Description of Activity

Objectives: Students will be able to:

1. State and identify specific, common lines that people may use to get someone to have unwanted or unprotected sex
2. Express specific responses to those lines

Risk and Protective Factors Affected:

1. Knowledge
2. Perception of peer norms about avoiding unwanted or unprotected sex
3. Skills to refuse unwanted or unprotected sex

Activity:

The instructor asks students for lines that young people use to get someone to have sex. After students state a line, the instructor asks for possible responses to those lines. This process is continued until students have identified multiple lines and at least one response for each line. Humorous responses and different styles of responses should be encouraged.

Notes:

1. Because the students describe the lines that their peers are involved in, these situations are real to the students.
2. Because the students suggest response to the pressure lines, they establish a clear norm that young people should not give in to these lines.
3. They also suggest particular responses that students can use if needed.

Important Considerations in Using It

Possible Pitfalls That Might Reduce Effectiveness:

1. Students are not given enough time to describe the situations.
2. Students are not given enough time or encouragement to describe methods of avoiding or getting out of such situations.
3. Students do not identify many solutions. (If the students struggle to come up with ideas, the educator should have suggestions ready.)

References for Lessons That Describe a Similar Activity More Fully

1. *Becoming a Responsible Teen,* Session 4, Activity 4: Different Communication Styles
2. *Safer Choices, Level 1,* Class 7, Activity 2: Responding to Lines

Activity 7-2

Situations That May Lead to Unwanted or Unintended Sex

Description of Activity

Objectives: Students will be able to:

1. Describe specific common situations that may lead to unwanted or unprotected sex
2. Describe ways to avoid or get out of those situations

Risk and Protective Factors Affected:

1. Knowledge
2. Perception of peer norms about having or avoiding unwanted or unprotected sex

Activity:

The instructor asks students to describe multiple situations that might lead to unwanted sex. After the students have mentioned a couple, the instructor chooses one of the most common ones and asks for greater detail about it. As appropriate, she/he asks where it would take place, what type of environment, who will be there, who will not be there, will alcohol or drugs be there, etc. A common situation might be a party at someone's home. Other teens will be there. Parents or other adults will not be there. Music, alcohol and empty bedrooms or other rooms will be part of the environment.

The instructor then asks what could be done to avoid such situations and allows time for students to give a variety of answers (e.g., check to be sure adults will be there, make sure alcohol and drugs will not be there).

The instructor then asks what you could do if you unexpectedly find yourself at such a party and allows time for multiple answers (e.g., ask to go home, make a compact with a girlfriend not to let you drink or go off with someone).

And finally, the instructor asks what you can do if you find yourself in a situation where you are necking and might become sexually intimate (e.g., go to the bathroom, state clearly you are not ready for this and want to leave the room, or say you have had too much to drink and do not feel well).

After one common situation has been described and discussed, the instructor chooses another dissimilar situation and goes through the same process. This is repeated until multiple possible solutions have been discussed or until most creative ideas for avoiding and getting out of risk situations have been suggested and described by students.

Notes:

1. Because the students describe the situations that their peers are involved in, these situations are real to the students.
2. Because the students suggest all the ways to avoid or get out of these situations, they establish a clear norm that students should either avoid or get out of these situations and should not have unwanted or unprotected sex.

Important Considerations in Using It

Possible Pitfalls That Might Reduce Effectiveness:

1. Students are not given enough time to describe the situations.
2. Students are not given enough time or encouragement to describe methods of avoiding or getting out of such situations.
3. Students do not identify many solutions.

(Continued)

Situations That May Lead to Unwanted or Unintended Sex

(Continued)

References for Lessons That Describe a Similar Activity More Fully

1. *Becoming a Responsible Teen,* Session 7, Activity 2: Getting Out of Risky Situations
2. *Draw the Line, Grade 7,* Lesson 3, Activity 3.3: Warning Signs
3. *Draw the Line, Grade 7,* Lesson 3, Activity 3.4: Risky Situations: Small-Group Activity
4. *It's Your Game, Grade 8,* Lesson 6, Activity II: The Danger Zone

Activity 7-3

Roleplaying to Enhance Refusal Skills

Description of Activity

Objectives: Students will be able to:

Refuse having unwanted sex

Risk and Protective Factors Affected:

Self-efficacy and skills to refuse unwanted sex

Activity:

Students are asked to brainstorm situations where they have witnessed others refuse to do something they did not want to do and then asked to identify the common characteristics of those effective refusals. If the students do not think of the following characteristics, be sure to include them:

- Stating "no" clearly (e.g., using the word "no," being direct and saying what you won't do)
- Repeating "no," if needed
- Using a firm tone of voice
- Using body language to emphasize the refusal

Two members of the class (preferably peer leaders or two other people who can model the skills well) complete a scripted roleplay in which one person successfully refuses having sex with the other person. The roleplay includes the characteristics above. The educator asks the students whether the roleplay included each of the four characteristics and asks for examples of each of them that were modeled in the roleplay.

The students are divided into groups of three and given two copies of a similar handout with a new scenario and scripted roleplay. Each person in the group practices refusing sex effectively when pressured by a second person in the group. The third person observes the entire roleplay, then verbally answers questions about how well the student refusing sex did so. For example, how did the person refuse sex? What body language was used? How could the refusal have been more effective? If need be, the roleplay is repeated in the group until each person completes it successfully.

Important Considerations in Using It

This activity should be followed by additional roleplaying activities that teach refusal skills and that may involve more difficult situations. The first activities should be fully scripted in advance so that the person refusing unwanted sex simply has to read the lines, state them clearly and forcefully and use appropriate body language. More advanced and later roleplays should provide a limited script for the person refusing, requiring students to develop their own words to refuse sex.

Educators should circulate during the small-group practices to make sure that everyone completes these roleplays successfully and to actively manage the classroom environment.

The educator should compliment the students on their success in effectively refusing unwanted sex and correct any misuses of the roleplays, as needed.

(Continued)

Roleplaying to Enhance Refusal Skills

(Continued)

References for Lessons That Describe a Similar Activity More Fully

1. *Becoming a Responsible Teen,* Session 5, Activity 4: Assertive Communication Demonstration
2. *Becoming a Responsible Teen,* Session 5, Activity 5: Assertive Communication Practice
3. *Cuidate!, Module 6,* Activity B: Using SWAT Technique and Scripted Roleplays
4. *Cuidate!, Module 6,* Activity C: SWAT Techniques and Roleplays
5. *Draw the Line, Grade 7,* Class 4, Activity 4.5: Student Roleplays
6. *Draw the Line, Grade 8,* Class 4, Activity 4.4: Practice, Practice, Practice
7. *It's Your Game, Grade 8,* Lesson 7, Computer-Based Activity: It's a Zoo: The Partner Challenge and Protecting Your Rules
8. *It's Your Game, Grade 8,* Lesson 10, Activity III: Under Pressure
9. *Making Proud Choices, Module 7,* Activity E: Introduction to SWAT and Scripted Roleplays
10. *Making Proud Choices, Module 8,* Activity A: Safer Sex Negotiation Skills and Video Clip
11. *Making Proud Choices, Module 8,* Activity B: Practicing and Enhancing Negotiation Skills: Unscripted Roleplays
12. *Reducing the Risk,* Class 3: Introduce Refusals
13. *Reducing the Risk,* Class 4: Using Refusal Skills (All activities)
14. *Reducing the Risk,* Class 5: Delaying Tactics (All activities)
15. *Safer Choices, Level 1,* Class 2, Activity 2: Effective NO Statements
16. *Safer Choices, Level 1,* Class 2, Activity 3: Student Skill Practice
17. *Safer Choices, Level 1,* Class 3, Activity 2: More Ways to Say NO
18. *Safer Choices, Level 1,* Class 3, Activity 3: Refusal Roleplays
19. *Safer Choices, Level 1,* Class 7, Activity 3: Refusal Skills Roleplays
20. *Safer Choices, Level 2,* Class 6, Activity 3: Student Skill Practice
21. *Safer Choices, Level 1,* Class 6, Activity 4: Real Situations: Unscripted Roleplays

Activity 7-4

Condom Line-Up

Description of Activity

Objectives: Students will be able to:

Describe the proper order of steps for using a condom correctly

Risk and Protective Factors Affected:

Self-efficacy to use a condom correctly

Activity:

In advance, the educator prepares two sets of 5 x 8 cards with the following steps for using a condom properly. Each set has 11 cards; each card has one step. These steps include the following kinds of steps, which can be modified or supplemented:

a. Purchasing a condom

b. Checking the date of the package to make sure it has not expired

c. Carefully removing the condom from the wrapper without puncturing it and checking to make sure it is good

d. Putting it on the penis so that it unrolls properly

e. Pinching the tip to keep out the air and allow sufficient space at the tip for the semen

f. Unrolling it all the way

g. Applying a water-based lubricant (but not an oil-based lubricant), if desired

h. Keeping it on during sexual intercourse

i. Holding the condom around the base of the penis and withdrawing from the partner

j. Taking off the condom carefully so that no semen comes out

k. Disposing of it properly

Twenty-two students are divided into two teams; each team gets one set of cards, one for each team member.

The team members have to read and hold up their cards and then get in a line such that the steps are in the correct order. The first team to line up properly wins the competition.

Important Considerations in Using It

This activity should only be implemented if school policies and community norms support its use.

It can generate lots of fun and excitement.

References for Lessons That Describe a Similar Activity More Fully

1. *Making Proud Choices, Module 7,* Activity A: Condom Line Up

2. *Safer Choices, Level 1,* Class 9, Activity 2: Practicing Proper Use of Condoms

Activity 7-5

Using Condoms Correctly

Description of Activity

Objectives: Students will be able to:

Demonstrate how to use a condom correctly

Risk and Protective Factors Affected:

Self-efficacy and skills to use a condom correctly

Activity:

The educator puts on the board the correct steps for using a condom correctly. She/he then demonstrates using a condom correctly with two fingers or a penis model. The steps should include:

- Checking the date of the package to make sure it is not too old
- Carefully removing the condom from the wrapper without puncturing it and checking to make sure it is in good condition
- Making sure it is latex and not lambskin
- Putting it on the penis so that it unrolls properly
- Allowing sufficient space at the tip for the semen
- Unrolling it all the way
- Applying a water-based lubricant (but not an oil-based lubricant), if desired
- Keeping it on during sex
- After sex, holding the condom around the base of the penis and withdrawing from the partner
- Taking off the condom carefully so that no semen comes out
- Disposing of it properly

After the educator has demonstrated proper use, students individually (or in pairs) are given wrapped condoms and complete the same steps by putting them over two fingers.

Important Considerations in Using It

This activity should only be implemented if school policies and community norms support its use.

Students should be not be forced to touch a condom if they do not wish to do so.

References for Lessons That Describe a Similar Activity More Fully

1. *Becoming a Responsible Teen,* Session 3, Activity 4: Using Condoms Correctly
2. *Cuidate!, Module 5,* Activity B: Condom Use Skills
3. *Draw the Line, Grade 8,* Class 6, Activity 6.4: Condom Demonstration
4. *Making Proud Choices, Module 5,* Activity D: Condom Use Skills
5. *It's Your Game, Grade 8,* Lesson 5, Computer-Based Activity: Marvin's Story, On the Air: Expert Corner II and Condom Steps
6. *Safer Choices, Level 1,* Class 9, Activity 1: Condom Demonstration
7. *Safer Choices, Level 1,* Class 9, Activity 2: Practicing Proper Use of Condoms
8. *Safer Choices, Level 2,* Class 7, Activity 2: Condom Demonstration
9. *SiHLE, Workshop 2,* Activity L: Introducing ORRaH

8 Improving Intentions

Keys to Improving Intentions

Improve risk and protective factors affecting intentions (see other factors), have youth identify their personal sexual intentions, and have them identify strategies for overcoming possible barriers to implementing those intentions.

Background

Intentions are courses of actions that people expect to follow. If people intend to do something, they are more likely to actually do it than if they do not intend to do it. This basic principle is a centerpiece of important theories of health behavior (e.g., the theory of reasoned action (Fishbein and Ajzen 1975), the theory of planned behavior (Ajzen and Madden 1986), and the information-motivation-behavioral skills model (Fisher and Fisher 1992), which are commonly used to develop effective curriculum-based sex and STD/HIV education programs (Kirby, Laris et al. 2006). Across a variety of health fields, a great amount of empirical evidence supporting these theories and the fact that intentions directly affect behavior (Armitage and Conner 2001; Backman, Haddad et al. 2002). Many of these same theories demonstrate that intentions are affected by the factors discussed in previous chapters—e.g., knowledge, perceptions of risk, attitudes, norms and self-efficacy.

Although intentions strongly influence behavior, the extent to which they affect behavior may depend on at least three things:

1. **The strength of the intentions.** For example, if youth strongly intend to remain abstinent until they are older, they are more likely to remain abstinent than if they have only weak intentions to remain abstinent. Alternatively, if youth strongly intend to use condoms if they have sexual intercourse, they are more likely to use condoms than if they have weaker intentions. Thus, it is important to increase the strength of healthy intentions.
2. **The skills or capability of the individuals to implement their intentions.** For example, youth may intend to remain abstinent, but if they do not have the skills to avoid or get out of situations that might lead to unintended sexual contact, then they are less likely to remain abstinent. Similarly, teens may intend to use condoms, but if they do not know how to insist on their use or do not know how to use them, their good intentions may not be fulfilled.
3. **Environmental support for the intentions.** Whether or not intentions are translated into behavior may depend on whether or not the environment thwarts or encourages the intended behavior. For example, young teens may intend to have sexual intercourse, but if they are properly

chaperoned, they may not have the opportunity. Or, teens may intend to use condoms when having sexual intercourse, but if they do not have reasonable access to condoms, then they may not use them.

In sum, intentions may have a large impact on behavior, but for various reasons, the "best of intentions" may not translate to behavior. Thus, it is important to increase intentions to avoid sexual risk behaviors (discussed in this chapter), to provide the skills to implement the intentions (discussed in Chapter 7) and to provide environmental support for the intentions (beyond the scope of this book).

When applying these concepts about the impact of intentions on actual sexual behavior, three questions should be asked:

1. Do teens' intentions to engage or not engage in specific sexual behaviors affect whether or not they actually engage in those behaviors?
2. Can we improve intentions?
3. What are effective methods for improving intentions?

These questions are answered below.

Do teens' intentions to engage or not engage in specific sexual behaviors affect whether or not they actually engage in those behaviors?

At least three studies have found that intending or pledging to delay initiation of sexual activity was related to subsequent delay in initiation of sex (Table 8-1) (Blum and Rinehart 1997; Kinsman, Romer et al. 1998; Bearman and Bruckner 2001; Kirby, Lepore et al. 2005). Conversely, one study found that intending to have sexual intercourse was related to actually having sexual intercourse. Only one study found no relationship between intentions about sexual intercourse and actual behavior.

Similarly, at least four studies have found that intentions to use condoms or contraception were related to actual use of condoms or contraception (Table 8-2). None of the studies reviewed found a lack of relationship or a negative relationship (Kirby and Lepore 2007). Collectively, research in the field of teen pregnancy and STD and research in other health areas strongly support the relationship between intentions and behavior.

On the other hand, intentions are not perfectly related to behavior. Studies clearly demonstrate that intentions typically explain considerably less than half the variation in actual behavior; other factors such as environmental factors explain more than half (Brown, DiClemente et al. 1992; Kinsman, Romer et al. 1998; Bearman and Brueckner 2001; Armitage and Conner 2001). As noted above, environmental factors include such factors as no opportunity to have sexual intercourse, extreme pressure to have sexual intercourse, lack of access to condoms or other forms of contraception and use of condoms or contraception by a partner without one's knowledge at the time.

It is also true that an intention to engage in one behavior may conflict with an intention to engage in another behavior. For example, in theory, the intention to abstain from sex may conflict with the intention to use contraception if sex does occur, and conversely, the intention to use contraception if sex occurs may conflict with the intention to abstain from sex. However, the review of studies summarized in Tables 8-1 and 8-2 suggests there is little evidence that the intention to use condoms or contraception, if sex does occur, had an impact on abstaining from sex. On the other hand, the intention to abstain from sex was associated with reduced use of condoms or other forms of contraception in three out of three studies (Bearman and Brueckner 2001; Manlove, Ryan et al. 2003; Morrison, Gillmore et al. 2003; Kirby and Lepore 2007).

Can we improve intentions?

Studies provide evidence that it is possible to improve intentions. Ten out of 18 programs (56 percent) increased intentions to abstain from sex or to restrict sex or partners (Table 8-3) (Kirby 2007). Similarly, 5 out of 11 programs (45 percent) increased intentions to use condoms or contraception if they do have sex. Although not every curriculum-based intervention had a significant impact, about half did so, clearly demonstrating that it is possible

Table 8-1 Number of Studies Reporting Effects of Intentions on Initiation of Sex

	Later Initiation of Sex	No Significant Relationship	Earlier Initiation of Sex
Greater intention or pledge to abstain from sex (N=4)	3	1	0
Greater intention to have sex (N=1)	0	0	1

Table 8-2 Number of Studies Reporting Effects of Intentions on Condom or Contraceptive Use

	Increased Use of Condoms or Other Contraceptives	No Significant Relationship	Reduced Use of Condoms or Other Contraceptives
Greater intention or pledge to abstain from sex (N=3)	0	0	3
Greater intention to have sex (N=1)	1	0	0
Greater intention to use condoms or contraception (N=4)	4	0	0

Table 8-3 Number of Programs Having Effects on Intentions

Intentions	Had a Positive Effect	No Significant Relationship	Had a Negative Effect
Intention to abstain from sex or restrict sex or partners (N=18)	10	8	0
Intention to use condoms or contraception (N=11)	5	5	1

to influence intentions if the proper strategies are implemented.

What are effective teaching methods for improving intentions?

According to the theory of planned behavior, intentions are influenced by attitudes, perceptions of social norms and self-efficacy (see Figure 1-1 in Chapter 1). For example, if youth have attitudes favoring abstaining from sexual activity, if they perceive that their parents and peers believe they should remain abstinent and if they believe that they can remain abstinent, then they are more likely to intend to remain abstinent than if any of these conditions are not met. Similarly, if youth have positive attitudes about condoms, believe that their peers support their use of condoms and believe that they can obtain and use condoms correctly, they are more likely to intend to use condoms than if any of these conditions do not exist. Multiple studies have demonstrated that these factors (attitudes, perception of norms and self-efficacy) do, in fact, affect intentions (Armitage and Conner 2001).

In practice, this means that to improve intentions, curriculum activities need to change attitudes, perceptions of social norms and self-efficacy. And, of course, because both knowledge and basic values affect attitudes, perceptions of social norms and self-efficacy, improving knowledge and helping clarify values also may improve intentions. Changing these factors is addressed in previous chapters (see Chapters 2 through 7).

A few additional activities may help youth clarify and implement their intentions. Although young people may intend to abstain from sexual intercourse or to use condoms or other forms of contraception, sometimes their intentions may not be entirely clear to them or well formulated; sometimes young people may not have moved from merely intending to do something to making a definite commitment to do something; and sometimes they have not thought about the barriers to implementing their intentions and possible strategies they could employ to overcome those barriers. Thus, effective curricula should include specific activities to help youth:

1. **Formulate and clarify their intentions.** Because youth are exposed to many conflicting messages and pressures, one or more activities should help youth make a clear decision about the best behavioral choices for them. To do so, activities should guide them through a process in which they think about what they have learned; their values about sexual behavior, pregnancy, and STD; their

attitudes about condoms and contraception; values and pressures from their families and peers; and their skills to avoid situations that might lead to sex and to using contraception. The ultimate goal of activities to address intentions is to help youth decide quite clearly what they intend to do (and not do) sexually during the coming months or years (Gerrard, Gibbons et al. 2003) (see Activity 8-1: Creating Personal Sexual Limits).

2. **Make commitments to themselves (or to others) to implement their intentions.** Although some theorists use the words "intentions" and "commitments" almost interchangeably, others believe that people are more likely to implement their intentions if they make a pledge or commitment to themselves or to others to engage in particular behaviors. For example, research has shown that public pledges to abstain from sex have delayed the initiation of sex under some conditions (Bearman and Bruckner 2001).
3. **Create a clear plan for implementing their intentions.** An effective means to help youth translate their intentions into behavior is to help them create a clear, specific plan detailing when, where and how the desired behavior will be performed (Gollwitzer 1999) (see Activity 8-2: Creating a Plan to Stick to Their Limits).
4. **Identify possible barriers to implementing their intentions and methods of overcoming those barriers so that they are more likely to succeed in implementing their intentions.** Youth should identify barriers specific to their own intentions and find strategies that will help them address those barriers. Many of the approaches to identifying and overcoming barriers are covered in prior chapters, but reviewing them in the context of their own intentions may be helpful (see Activity 8-2: Creating a Plan to Stick to Their Limits).

How have intentions been measured?

Table 8-4 lists illustrative items that have been used to measure adolescents' intentions.

Table 8-4 Examples of Items That Have Been Used to Measure Intentions to Have Sex or Use Condoms or Contraception[11]

Each item with a + sign represents a positive intention and a protective factor, while each item with a — sign represents a negative intention and a risk factor. Thus, within each scale, items with a + sign should be scored in the opposite direction of those with a — sign.

Positive or Negative Factor	Intention to have sex
+	I intend to abstain from sex until I am older.
+	I intend to abstain from sex until I am married.
Positive or Negative Factor	**Intention to use condoms or contraception**
+	If I have sexual intercourse in the next year, I am sure that I will always use a condom.
+	If I have sexual intercourse in the next year, I am sure that I will always use an effective method of contraception.

11 Most of these items are based on actual questions used to measure factors in previous research. These items specify more precisely some of the factors that are related to behavior and therefore can be helpful when designing programs to address the proximal sexual factors. They also can be used to create items for questionnaires in survey research.

Conclusions

Multiple studies have demonstrated that, in general, people's intentions to engage in particular behaviors are directly related to their subsequently engaging in those behaviors. Multiple studies also have demonstrated that young people's intentions to engage in sexual activity or remain abstinent or to use condoms or other forms of contraception are related to those behaviors. However, good intentions do not always lead to desired behavior. Sometimes intentions are weak, people do not have the needed skills to implement them, or their environment thwarts their efforts.

Nevertheless, if curricula improve young people's knowledge and values about sexual issues, improve their attitudes, increase perceived support from

others for desirable behavior and increase their perceived skills, then those curricula are likely to improve and strengthen intentions, thereby increasing the likelihood of desired sexual behavior (e.g., not having sex, limiting partners and using protection). Other strategies—such as helping youth make clear decisions about what behaviors are right for them, make a commitment to themselves or others to engage in particular behaviors, create a clear and specific plan to implement their intentions and review potential obstacles and methods of overcoming those obstacles—will provide further support for translating intentions to protective behaviors.

Activity 8-1

Creating Personal Sexual Limits

Description of Activity

Objectives: Students will be able to:

Clarify or create their own sexual limits

Risk and Protective Factors Affected:

Intentions to avoid unprotected sex

Activity:

Students view stories or videos of young people who were unsure about what they wanted to do or not do sexually and then had sexual intercourse that they regretted, perhaps because they were sorry they had sexual intercourse or perhaps because they got pregnant or contracted an STD. Thus, they understand the importance of being clear about what they want to do and not do sexually. As a group, students brainstorm possible limits involving relationships and sexual behavior that students might have—e.g., holding hands and kissing, but nothing further. Students are reminded that the safest choice is to not engage in sexual intercourse and that, if they do, they should always use effective protection against pregnancy and STD.

Students then individually review the risks of unprotected sexual intercourse, their values and attitudes about sexual activity, their parents' values, their peers' norms, and their goals, and make a clear decision about what they will and will not do sexually. Students make this decision concrete by either drawing a line in a list of progressively more risky sexual behaviors that is given them (with their own line separating what they would and would not do sexually) or by writing a pledge to themselves to stick to their chosen limit.

Students are encouraged to tell their friends what their limits are, so that their friends can support them in keeping these limits. Telling their friends their limits also strengthens their intentions.

Important Considerations in Using It

This activity is often completed near the end of the course when students can review all that they have learned during the course, select their personal limits, and make a commitment to them.

References for Lessons That Describe a Similar Activity More Fully

1. *Becoming a Responsible Teen,* Session 1, Activity 5: Deciding Your Level of Risk
2. *Safer Choices, Level 1,* Class 10, Activity 3: Closure—What You Can Do
3. *Safer Choices, Level 2,* Class 5, Activity 2: Avoiding UNSAFE Choice
4. *Safer Choices, Level 2,* Class 5, Activity 3: Analyzing the Situation

Activity 8-2

Creating a Plan to Stick to Their Limits

Description of Activity

Objectives: Students will be able to:

Identify possible threats to their chosen sexual limits, and describe methods of overcoming those threats

Risk and Protective Factors Affected:

Intentions to avoid unprotected sex

Self-efficacy to avoid unprotected sex

Activity:

The educator emphasizes that in the coming years, there may be challenges to their personal sexual limits and that they can best resist those challenges if they remember their limits clearly and have a plan in place ahead of time to resist challenges. Students in the class brainstorm possible challenges or threats to avoiding sexual activity or using protection if they do engage in sexual activity. They brainstorm ways of resisting or overcoming those threats and either avoiding sexual activity or always using effective protection.

Students then individually write down on their own sheets of paper their own plan for sticking to their limits. Students do not put their names on the sheets and these plans are kept confidential.

Important Considerations in Using It

This activity is often completed near the end of the course when students can review all that they have learned, select their personal limits and make a commitment to them.

References for Lessons That Describe a Similar Activity More Fully

1. *Reducing the Risk,* Class 15, Worksheet 15.1: Sticking with Abstinence and Protection
2. *Safer Choices, Level 2,* Class 5, Activity 3: Analyzing the Situation
3. *Safer Choices, Level 2,* Class 5, Activity 4: My Personal Limits

9 Increasing Parent-Child Communication About Sex

Keys to Increasing Parent-Child Communication About Sex

Provide homework assignments in which students are asked to talk with their parents or other trusted adults about various topics related to sexual behavior. To reduce teen sexual risks, parents should discourage sexual initiation before their teens initiate sex and support contraceptive use before and after their teens initiate sex.

Background

Parents' communication with their children has diverse and life-long effects on their children's behavior. After all, parents communicate their knowledge, beliefs, values, expectations and many other messages, all of which affect their children's behavior. Parent-child communication is an essential part of parents' supervision and monitoring of their children, including their adolescent children. Parent-child communication is part of and contributes to parent-child connectedness, a "super-protector" that affects more than 30 different adolescent health outcomes such as tobacco use, depression, eating disorders, academic achievement, pregnancy, sexually transmitted disease, and others (Lezin, Rolleri et al. 2004). Most generally, parent-child communication is a critical part of the entire socialization process, which greatly affects children's behavior. Thus, it has a huge impact on adolescent behavior (Miller 1998).

However, the impact of parent-child communication depends greatly on many factors, including:

- The characteristics of the parents (e.g., their parenting, time availability and cultural norms)
- The characteristics of the children (e.g., their age, gender, genetic predispositions, beliefs, culture and acculturation)
- The characteristics of the relationship between the parents and their children (e.g., whether they are close and connected)
- The content of the ideas being communicated (e.g., the facts, beliefs, and values being communicated)
- The characteristics of the communication process (e.g., whether the parent is conveying beliefs in a monologue or there is an open dialogue between the parents and their children)

Reviewing the extensive literature on all of these topics is beyond the scope of this chapter. Rather, it focuses more specifically on parent-child communication about sexual activity.

Clarifying Terms and Phrases

Consistent with the literature on parent-child communication about sex, the term "parents" in this chapter is broadly defined to include biological parents, adopted parents, grandparents and others

who have primary responsibility for young people. Although this chapter will focus mostly on communication between parents and their adolescent (or teen) children, verbal or non-verbal communication about sexuality can and typically does begin much earlier. And finally, considerable research on parent-child communication focuses on verbal communication about particular sexual topics, but it should be fully recognized that parents commonly communicate their values about sexual activity, contraception, teen pregnancy and the like both non-verbally and through their own modeling of relationships and sexual behavior.

Focusing on Parent-Child Communication About Sex

For decades, professionals concerned about young people have worked to increase parent-child communication about sexuality as part of their efforts to reduce the rates of teen pregnancy and STDs, including HIV infection. These efforts frequently were based upon several beliefs:

- Parents should be the primary sexuality educators of their children, but youth are exposed to a great deal of sex-related content in the media, on the Internet, from their friends and sometimes from school.
- Parents talk infrequently and inadequately with their children about sexuality because they have considerable difficulty and discomfort discussing the subject.
- Effective parent-child communication about sexuality will lead to less sexual risk-taking on the part of young people.
- Properly designed programs can increase effective parent-child communication about sexuality and comfort with that communication, thereby reducing adolescent sexual risk-taking.
- Encouraging parents to be the primary sexuality educators of their children is less controversial than teaching sex or STD/HIV education in schools.

For all these reasons, people concerned about adolescent sexuality have developed activities or entire programs (sometimes for children and their parents and sometimes for parents alone) to help parents and their children communicate more effectively and more comfortably about sexuality.

When reviewing the research on parent-child communication, several questions should be asked:

1. Does parent-child communication about sex affect adolescent sexual behavior?
2. Can activities and programs for teens increase parent-child communication about sex and contraception? How?
3. Can programs for parents and their teens together increase parent-child communication about sex and contraception and actually reduce sexual risk? How?
4. Can programs for only parents increase parent-child communication about sex? How?
5. What are tips for parents about how to talk about sexual topics?

Does parent-child communication about sex affect adolescent sexual behavior?

According to theorists, parent-child communication about sexuality affects teens' sexuality-related knowledge, values, attitudes, self-efficacy and intentions to engage in sexual behaviors, which, in turn, affect actual behavior.

In dozens of studies, investigators have examined the assumption that parent-child communication about sex actually reduces adolescent sexual risk-taking either by delaying sex or using condoms or other forms of contraception (Miller 1998). Typically, they have used survey data to analyze these relationships. Unfortunately, it is difficult to measure the impact of this communication on teen sexual behavior, both because there are numerous methodological challenges (e.g., difficulties in measuring the extent of communication and in establishing causality) and because the relationship between such communication and teen sexual

behavior may be quite complex (Jaccard, Dittus et al. 1993).

Greater parent-child communication about sex and birth control is not consistently related to sexual behavior (Table 9-1). One of the reasons is that there may be a positive spurious (non-causal) relationship between parent-child communication and initiation of sexual intercourse. That is, when teens become involved in romantic relationships and situations that might lead to initiating sexual activity, they become more likely to have sexual activity and their parents become more likely to discuss delaying sexual activity (and using contraception) with them. Thus, it is not surprising that some studies show that teens who have had sex are more likely to have discussed delaying sex with their parents than teens who have not had sex. However, this does not mean that if parents talk to their teens about delaying sex before their teens actually have sex, their teens will have sex sooner. In fact, two studies show that when parents did talk with their teens about delaying their initiation of sex before teens had initiated sex, then the teens were likely to wait longer to initiate sex (Table 9-2) (East 1996; Whitaker and Miller 2000).

Studies also suggest that the impact of parent-child communication about sexual activity may depend on various characteristics of parents, their children and their message. For example, if mothers disapprove of teens having sexual relations, communication takes place early, and there is a close mother-child relationship, then mother-daughter communication may delay the daughter's initiation of sexual intercourse. However, there may be less impact on delay of sexual contact if parents do not disapprove of teens having sexual relations, the parents are talking to sons rather than to daughters, the communication takes place too late, or the parents are not close to their children (Jaccard, Dittus et al. 1993; Miller 1998; Kirby and Lepore 2007).

There is stronger and more consistent evidence that when parents accept and support contraceptive use and encourage their teens to use contraception, then the teens are more likely to use contraception. Three studies found positive effects of parental acceptance and support of contraception on teen use of contraception; none found non-significant or negative effects (Kalagian, Loewen et al. 1998; Jaccard and Dittus 2000; Longmore, Manning et al. 2003). Similarly, five studies found a positive effect of parent-child communication about contraception, only two found insignificant effects, and none found a negative effect (Table 9-3) (Casper 1990; Loewenstein and Furstenberg 1991; Reschovsky and Gerner 1991; Moore, Morrison et al. 1995; Jaccard, Dittus et al. 1996; DiClemente, Wingood et al. 2001; Kirby and Lepore 2007). Practical implications of this research are that in order to reduce sexual risks, parents should discourage sexual initiation before their teens initiate sexual activity and support contraceptive use before or as soon as their teens have sexual intercourse.

Table 9-1 Number of Studies Reporting an Association Between Parent-Child Communication About Sex and Teens' Initiation of Sex

	Later Initiation of Sex	No Significant Relationships	Earlier Initiation of Sex
Parent-child communication about sex and birth control (N=14)	2	6	6

Table 9-2 Number of Studies Reporting Effects of Parent-Child Communication About Sex on Teens' Subsequent Initiation of Sex

	Delayed Initiation of Sex	No Significant Relationships	Hastened Initiation of Sex
Parent-child communication about sex *before* the teens had initiated sex (N=3)	2	1	0

Table 9-3 Number of Studies Reporting Effects of Parent-Child Communication About Sex on Teens' Condom or Other Contraceptive Use

	Increased Use of Condoms or Other Contraceptives	No Significant Relationship	Reduced Use of Condoms or Other Contraceptives
Parent-child communication about sex and birth control (N=7)	5	2	0

Can activities and programs for teens *increase parent-child communication about sex and contraception? How?*

At least seven studies of sex education programs for teens have measured impact on the frequency of parent-child communication about sex (Table 9-4) (Kirby 2007). Four increased communication and one study found that it also increased comfort with that communication. When greater communication did occur, it was not clear how long that increased communication lasted.

All four programs for teens that included homework assignments to talk with a parent or another trusted adult about specific sexual topics significantly increased communication about those topics (Kirby, Barth et al. 1991; Weed, Olsen et al. 1992; Middlestadt, Kaiser et al. 1998; Coyle, Basen-Enquist et al. 2001), while none of the three programs that lacked such an assignment increased parent-child communication. These results indicate that homework assignments are both important and effective (see Activity 9-1: Homework Assignment to Talk with Parents).

It should be noted that activities to increase parent-child communication not only actually increase that communication, but also increase support for sex education programs and diminish opposition. Sometimes parents believe that sex education programs may not incorporate their values and may instill values in opposition to their own. When parents see that programs are striving to help them express their own values to their own teens, they are comforted and support these programs.

Table 9-4 Number of Programs for Teens Having Effects on Parent-Child Communication About Sex

	Had a Positive Effect	No Significant Effect	Had a Negative Effect
Impact on frequency of parent-child communication about sex (N=7)	4	3	0
Impact on comfort talking with parents about sex, condoms or contraception (N=1)	1	0	0

Homework assignments also provide a legitimate reason for talking about sexuality. If teens suddenly start asking parents about condoms and contraception, their parents may fear they are having sexual intercourse or are about to start having sexual intercourse and the resulting conversations may be uncomfortable and unproductive. However, when these questions are asked as part of a school homework assignment, then the assignment provides legitimacy for the questions and discussions. Parents are then less likely to have this concern and are more likely to be comfortable discussing the topic.

Although not all students will talk with their parents and some may not talk with any adult, typically large majorities of students do talk with their parents when they are given these assignments (Kirby, Barth et al. 1991; Blake, Simkin et al. 2001). When these homework assignments are implemented in school settings, they represent a unique method of significantly increasing parent-child communication about sex in a large percentage of families.

A variety of strategies can improve the effectiveness of these homework assignments:

1. Notify parents in advance that their teens will be asking them questions about particular sexual topics so that they can prepare possible answers and think about what they want to say and how to say it. Consider handing out a copy of the assignment at a parent orientation meeting.
2. Provide parents in advance with tips on how to have effective conversations about sex with their teens.
3. Provide parents with information about teen sexual activity (in their teens' schools or communities, if possible), local teen pregnancy and STD rates, the effectiveness of condoms in preventing STDs and different methods of contraception in preventing pregnancy.
4. Provide parents with brief summaries of a range of different values about sexual activities and condoms or contraception that they might wish to express to their own teens.

5. Give students multiple homework assignments to talk with their parents, first starting with much easier, less sensitive topics (such as what it was like dating when the parents were young, what pressures they experienced as a teen, reasons teens back then chose for not having sex) and moving in subsequent homework assignments to more controversial topics (such as whether it is okay for teens their age to have sex today, under what conditions young people could have sex, and how teens should protect themselves from pregnancy and STDs).
6. Prior to giving students homework assignments, have them discuss what it might feel like to have these conversations with their parents or other trusted adults and what they can do to reduce any discomfort.
7. After the first homework assignment, have the students debrief in class their experiences (not what parents said) and discuss ways to make subsequent assignments more comfortable and more effective.
8. Always emphasize to everyone (both students and their parents) that their conversations are confidential and make sure that they remain so.
9. Encourage students to talk with their own parents. If they cannot do so, encourage them to talk with other trusted adults.

In sum, studies of the effects of homework assignments indicate that:

- It is possible to reach large numbers of parents through student homework assignments.
- Large proportions of students and their parents will complete these assignments.
- Homework components can include as many as five different assignments as well as various and more complex activities, such as roleplaying.
- These assignments do increase parent-child communication, at least in the short run.
- Homework assignments may or may not change the students' sexual attitudes or sexual behavior in the long run.

Can programs for parents and their teens together *increase parent-child communication about sex and contraception and actually reduce sexual risk? How?*

When both parents and teens participate together in programs designed to increase parent-child communication about sex, those programs typically include activities in which parents and their teens talk about various sexual topics. Logically, such programs should increase parent-child communication. Consistent with this expectation, 10 out of 12 studies measuring impact of these programs on parent-child communication found positive effects on the frequency of this communication (Table 9-5) (Kirby and Miller 2002). This greater communication occurred both when the programs were implemented in the home (one study) and in community settings (nine studies).

Furthermore, seven studies meeting more stringent research criteria have measured the impact of programs for parents and their teens on actual sexual behavior (Kirby 2007). One of them delayed the initiation of sex, one reduced the frequency of sex and four increased condom use. None of these seven programs had negative effects—that is, none increased sexual behavior or reduced condom or contraceptive use.

Table 9-5 Number of Programs for Parents and Teens Having Effects on Parent-Child Communication About Sex and Teen Sexual Behavior

	Had a Positive Effect	No Significant Effect	Had a Negative Effect
Impact on frequency of parent-child communication about sex (N=12)	10	2	0
Impact on teen initiation of sex (N=5)	1	4	0
Impact on frequency of sex (N=1)	1	0	0
Impact on condom use (N=4)	4	0	0
Impact on contraceptive use (N=1)	0	1	0

Programs for parents and their teens have a few obvious advantages over programs for teens only. They can:

1. Increase the knowledge of both parents and teens.
2. Model discussion of sexual topics and increase comfort with the discussion of sexual topics.
3. Provide opportunities in the group and immediately afterward (e.g., on the way home) for young people and their parents to talk about sexual topics with each other.
4. Provide a comfortable climate where everyone expects they are going to talk about sexuality and where they see everyone else doing so.
5. Provide an environment where prompt guidance or assistance is available, if needed.

Programs for parents and their teens have one significant disadvantage: they have to recruit parents and teens to participate and many organizations have found this extremely difficult. After all, parents may have busy work schedules or may be involved in other after-school activities; they may not have child care or transportation available; or they may not have the energy or interest to participate. Some groups trying to implement such programs have found it effective to work with other existing youth-serving and parent-serving organizations that recruit and involve parents and teens for other reasons (e.g., faith communities or Boys and Girls Clubs). Some also have provided transportation, child care and incentives such as meals for participation.

Essential elements of parent-child programs are described more fully elsewhere (Kirby, Lezin et al. 2003). Programs often meet for several nights (about four or five, but sometimes for more) and the sessions typically last about 1½ to 2 hours. Some programs divide participants by gender (father-son groups and mother-daughter groups) and age (groups for young people 9 to 12 years old and groups for young people 13 to 17 years old), and limit each group to 10 parent-child pairs. While parents and their teens may be separated in one or more sessions, most sessions involve both parents and their children.

Programs often present didactic material about topics common to sexuality education classes, such as anatomy, changes during adolescence, sexual behavior, reproduction, contraception, teen pregnancy and STDs. It is very important, however, to balance the content by also including multiple interactive activities, such as small-group discussions, games, contests, simulations, films and experiential activities that facilitate parent-child communication during the class.

For example, as an ice breaker, parents can compete against their kids in a relay race in which they have to blow up a balloon, retrieve the coiled question inside, read the question about sexuality, and answer it (either correctly or incorrectly) (see Activity 9-2: Relay Race for Parent-Child Programs). The excitement of the race can diminish their embarrassment as they talk rapidly and generally about a range of sexuality-related topics.

Similarly, two parents and their two teens can play a board game in which they roll dice and move around the board toward home base while landing on blue squares (requiring them to draw a card and answer a knowledge question) or red squares (requiring them to draw a green card and answer a question about how they felt about some aspect of sexuality) (see Activity 9-3: Human Sexuality Board Game for Parent-Child Programs).

Another popular activity involves "Dear Abby" letters that describe various situations and ask for advice. Again, in small groups, parents and their own children can read, answer, and discuss the letters (see Activity 9-4: "Dear Abby" for Parent-Child Programs).

Another approach that involves parents in their teens' sexuality education is to reach them in their own homes through video or written materials. Home-based video programs have several possible advantages. First, they do not require parents or their teens to go to any particular location at a particular time. Instead, schools, libraries, or health clinics can loan the materials to parents. In addition, parents can review the program and make certain they are comfortable with both the values discussed

and the activities suggested prior to using them with their own children. Finally, the home-based programs can teach skills that parents can practice and use in the home to teach their children.

On the other hand, home-based video programs have several disadvantages. For example, families may not complete the activities or may simply view them (which is relatively easy to do), without completing the roleplaying or skill practice (which requires much more initiative, involvement and thinking and may feel threatening). In addition, the videos may not prove realistic to both young people and parents. Youth often think the teens in videos dress or act differently than they themselves do and that the situations are not realistic. Both the youth and their parents also may have difficulty relating to the youth and the situations in the video because they feel they are contrived.

Home-based video programs can be quite comprehensive. For example, a video program that included six videos and written materials provided information, modeled parent/child communication in dramatic scenarios and emphasized sexual values consistent with abstinence (Miller, Norton et al. 1993). Each of the six videos was brief (about 15 to 20 minutes) so that families could discuss the topics after viewing each video. The written materials suggested questions and topics for discussion. Together they covered changes in puberty, facts about reproduction, parent/teen communication, values and sexual behavior, sexuality in the media, decision-making skills and communication skills. Because of the targeted age group (10- to 14-year-olds), the program focused on abstinence.

Can programs for only parents *increase parent-child communication about sex?*

Although most multi-session programs focus on both parents and their children, a few target only parents, especially parents of older youth. Typically, these programs adopt a different approach from that used with parents and their children together. Instead of trying to provide opportunities for communication during the sessions, they strive to improve parents' knowledge, attitudes and skills so that they can more effectively communicate with their children about sexuality-related issues.

These programs sometimes cover topics such as dating and sexuality and general communication skills (such as listening, taking turns talking and listening and giving supportive responses to adolescents' comments).

Two studies have measured the impact of these programs on parent-child communication; both found that they increased communication (Table 9-6).

Table 9-6 Number of Programs for Only Parents Having Effects on Parent-Child Communication About Sex

	Had a Positive Effect	No Significant Effect	Had a Negative Effect
Impact on frequency of parent-child communication about sex (N=2)	2	0	0

What are tips for parents about how to talk about sexual topics?

When helping parents talk about sexual topics with their teens, it is not sufficient to simply provide them with accurate information about sexual topics. Rather, programs need to help parents know how to discuss these topics with their teens in ways that will make the discussions more comfortable and more effective. With that in mind, here are tips for parents that could be featured in a program:

- Start early, when children are young, with conversations appropriate for their age. Do not wait until children are adolescents or until they ask you questions about sexuality. If you wait, they will learn this is not a topic to be discussed and are less likely to ask.
- Avoid the single "big talk" and instead have numerous shorter conversations, so that sexuality is discussed like other topics.
- Take advantage of "teachable moments," such as stories on TV or events in the community.

- Help make the conversation a dialogue and not a monologue; encourage children to express their views and ask questions.
- If need be, become informed about the levels of sexual activity among your children's friends and peers.
- Think about your beliefs and values and share them clearly and honestly.
- Recognize that conversations about sex may sometimes be uncomfortable, but that it is important to have them anyway.
- Always remember that talking about sex does not encourage young people to have sex, but may help them make more responsible sexual decisions.

How has parent-child communication been measured?

Table 9-7 lists illustrative questions that have been used to measure parent-child communication about sexuality.

Table 9-7 Examples of Items That Have Been Used to Measure Parent-Child Communication About Sexuality

Communication questions
Have you ever talked with your parents about the following list of topics? (No; Yes, a little; Yes, a lot)
If yes, how many times?
If yes, how comfortable were you? (Very comfortable; Kind of comfortable; Not at all comfortable)
List of topics
Body changes
Menstruation and wet dreams
Reproduction
Going out; going together at different ages
Reproduction
Pregnancy
Sexually transmitted disease
Values about sexual behavior
Alternatives to sex
Young people having sex (under what conditions, if at all)
Using condoms or other types of contraception
Healthy and unhealthy relationships
Dating violence

Conclusions

In sum, these studies indicate that reaching parents through homework assignments may prove the most promising method of reaching large numbers of parents and actually having an impact on parent-child communication. These homework assignments and programs for parents and their teens together have the strongest evidence that they increase parent-child communication about sex. These results undoubtedly reflect the fact that homework assignments and activities in parent-child programs directly involve parents and teens talking together about sex. That is, if activities are completed, they will necessarily increase parent-child communication. However, the longer-term impact on this communication is less clear. A few of these programs, either with homework assignments to talk with parents or with the direct involvement of parents and their teens, actually delayed the initiation of sexual activity or increased condom use.

Numerous studies indicate that other family characteristics (e.g., parental support/connectedness and parental monitoring) are related to adolescent sexual behavior. To the extent that programs to increase parent-child communication about sex also can increase parental support, connectedness and possibly even appropriate monitoring, they also may reduce teen sexual risk behavior.

Activity 9-1

Homework Assignment to Talk with Parents

Description of Activity

Objectives: Students will be able to:

Increase the frequency and quality of parent-child conversations about sex

Risk and Protective Factors Affected:

Parent-child communication about sex

Activity:

Students are given a homework assignment to go home and talk with their parents (or other trusted adults) about sexuality. They ask their parents the questions on a worksheet, but do not record answers. The worksheet should include questions about when it is okay for a person to have sex, what people should consider before deciding to have sexual intercourse, and what the parents' beliefs are about using condoms or other types of contraception. Students are encouraged to take this opportunity to talk with their parents about other issues involving sex.

After the students and parents discuss these questions, the parents (or other trusted adults) sign the worksheet, indicating they had a conversation about the questions.

As an option, students can brainstorm questions beforehand in class that they would like to ask their parents. They then choose questions from the brainstormed list that they would like to ask their parents, in addition to those on the worksheet.

In subsequent class periods, students debrief their experience talking with their parents about sex. To maintain confidentiality, they do not reveal what their parents said. Students then identify strategies for making it easier to talk with their parents about sex.

Important Considerations in Using It

Parents should be notified ahead of time that their teens will be bringing home an assignment to talk with them about sexuality, so that the parents can think about and prepare their answers, if necessary.

Parents can be given information about sexual behavior among teens in their communities, teen pregnancy and STD rates and the effectiveness of condoms and other forms of contraception.

Multiple consecutive homework assignments can lead to more in-depth conversations.

References for Lessons That Describe a Similar Activity More Fully

1. *It's Your Game, Grade 7,* Lesson 10, Activity IV: Parent-Student Homework
2. *It's Your Game, Grade 8,* Lesson 11, Activity IV: Parent-Student Homework
3. *Reducing the Risk,* Class 3: Talk to Your Parents
4. *Safer Choices, Level 1,* Class 1, Activity 4: Homework—Then and Now
5. *Safer Choices, Level 1,* Class 5B, Activity 2: Homework Review—Then and Now
6. *Safer Choices, Level 1,* Class 7, Activity 5: Homework—What Do You Think?
7. *Safer Choices, Level 2,* Class 1, Activity 3: Homework—Talk About It
8. *Safer Choices, Level 2,* Class 5, Activity 1: Homework Review—Talk About It
9. *Safer Choices, Level 2,* Class 8, Activity 4: What Do You Think?
10. *Safer Choices, Level 2,* Class 10, Activity 1: Homework Review—What Do You Think?

Activity 9-2

Relay Race for Parent-Child Programs

Description of Activity

Objectives: Teens will be able to:

Talk more comfortably with their parents or other trusted adults about various topics about sex

Risk and Protective Factors Affected:

Parent-child communication about sex

Activity:

This is a fast-paced relay race between parent and teen teams.

Prior to the race, factual questions about a variety of sexual topics are printed on a sheet of paper, cut into individual questions and inserted in balloons—one question per balloon. At one end of the room are placed two piles of balloons (not blown up) with equal numbers of balloons and their respective questions.

The parents form one line and the teens form a second line at the other end of the room from the piles of balloons. When the educator says "Go," the parent at the head of the parent line and the teen at the head of the teen line run across the room and grab one balloon each with questions inside from their respective piles. They then blow up the balloons, pop the balloons, retrieve the questions that fall out, read the questions out loud and answer them out loud. They do not have to answer the questions correctly. When each is done, they run back to their side of the room and the next adult or teen repeats the same process. This continues until either the adult team or the teen team has blown up and broken all the balloons and answered all the questions. The team that does this first wins.

At the end of the race, if any questions were answered incorrectly, the correct answers should be given. In addition, if either students or parents had any questions about any of the questions, those should be addressed. If either students or parents might not be comfortable asking questions, then they can be encouraged to put questions into an anonymous question box.

Important Considerations in Using It

This is a relay race and is designed to be fun, so clapping and cheering should be encouraged.

Typically, in the heat of the race, teens will read and answer questions that might normally make them uncomfortable.

If anybody answers a question incorrectly, that question should be noted and the correct answer should be given in a subsequent activity; the correct answer should not be given during the race, for that might destroy the competition in the race.

There should be enough balloons for everyone to participate. If there are more teens than parents or *vice versa,* then one or more members of the smaller team will have to blow up two balloons and answer the questions so that each team has to blow up and answer the same number of balloons/ questions.

References for Lessons That Describe a Similar Activity More Fully

1. Parent Child Sex Education Training Module, Balloon Race

Activity 9-3

Human Sexuality Board Game for Parent-Child Programs

Description of Activity

Objectives: Teens will be able to:

Discuss various topics about sex more comfortably with their parents or other trusted adults.

Risk and Protective Factors Affected:

Parent-child communication about sex

Knowledge about selected issues involving sexual behavior

Activity:

Two teens and their parents play a board game.

On the boards are many adjacent squares that form pathways around the board. Each pathway has a "start" square and an "end" square. The number of squares between the "start" and "end" squares is the same for each pathway. All squares are colored red, blue and green (in that order) along each path.

Players can start at the same square or different squares by placing markers on those squares. Each player rolls a die and moves the marker the number of squares on the die in a clockwise direction. If the player lands on a blue square, he/she must draw a blue card from the blue pile of cards. Blue cards have a factual question on each card, which the player must read and answer. If a player lands on a green card, he/she must draw a green card. Each green card has a question about values, attitudes or feelings regarding sexuality, which the player must answer. If a player lands on a red square, he/she must abide by the directions on the red square. These include directions such as "lose one turn," "go back two spaces," or engage in some other action that reduces the chances of reaching the "end" square first and winning.

In this activity, if a knowledge question is answered incorrectly, the correct answer should be given by any of the other players. However, not answering a question does not affect the movement of the players.

The first player to get to the end of the pathway (around the board) wins. If a player wins before most of the cards are drawn, then the game can be played repeatedly until all the cards are read.

Important Considerations in Using It

This activity is designed to be fun, but it is also designed to increase thoughtful discussions about each of the topics asked on the blue and green cards. It should not be rushed.

The game may only be as good as the topics on the cards, so questions and topics that are important and relevant for the age group should be included on the cards.

If a player does not wish to answer a question, he/she may "pass" and that right must be respected.

References for Lessons That Describe a Similar Activity More Fully

1. Parent Child Sex Education Training Module, Human Sexuality Game (Note: This game can be purchased by itself)

Activity 9-4

"Dear Abby" for Parent-Child Programs

Description of Activity

Objectives: Students and their parents will be able to:

Discuss sexual situations encountered by teens more comfortably and effectively

Risk and Protective Factors Addressed:

Parent-child communication about sex

Activity:

Parents form one or more teams (with up to six parents per team) and their teens form separate teams (with up to six teens per team). Each team is given the same set of "Dear Abby" letters that depict a variety of sexual dilemmas or situations sometimes encountered by young people like the teens. Each group independently reads and discusses the letters.

All the parents and teens reconvene in a single large group and representatives from each group share and compare the team's solutions to the problems.

After all the parents and teens have had a chance to read a dilemma/situation and suggest advice, a larger group involving all the parents and teens (up to about 16 people) is formed, the dilemma/situations are then read again, and representatives from each small group share their advice and give their reasons for their advice. Each time the advice is given for a particular dilemma/situation, all the teens are asked the question: "Is this realistic?"

Important Considerations in Using It

After solutions are given for each dilemma/situation, all the teens should be asked whether the solution is realistic.

References for Lessons That Describe a Similar Activity More Fully

1. Parent Child Sex Education Training Module, Dear Abby
2. Brown, J., Downs, M., Peterson, L., and Simpson, C. (1978). *Human Sexuality Game: Parent-Child Sex Education: A Training Module.* St. Joseph, MO: YWCA.
3. Brown, J., Downs, M., Peterson, L., and Simpson, C. (1989). *Parent-Child Sex Education: A Training Module.* St. Joseph, MO: YWCA.

10 Conclusions

Keys to Reducing Sexual Risk Behavior

Focus on the sexual psychosocial factors and implement a sufficient number of activities that incorporate the principles to address, improve and impact sexual behavior.

Overview

To reduce their high rates of unintended pregnancy and STDs, including HIV, young people must reduce their sexual risk behavior by initiating sex later, having sex with fewer sexual partners, or using condoms or other forms of contraception more consistently and correctly. Because programs that are designed to address unintended pregnancy and STDs cannot directly control the sexual risk behavior of young adults, they must affect various risk and protective factors that, in turn, affect young people's decision-making and behavior.

Logically, if programs correctly focus on the factors that have a strong impact on behavior and if program activities markedly change those factors, then the program will have an impact on behavior. However, if programs focus on factors that only weakly affect behavior or if program activities fail to change the factors sufficiently, then the programs may not affect behavior. Thus, it is critical that programs focus on the important factors affecting behavior and implement activities that change those factors.

This book was written to help people design curriculum-based programs that effectively address those factors. The previous chapters have discussed seven important factors that affect sexual behavior:

1. Knowledge about numerous sexual topics
2. Perception of risk of undesired sex, pregnancy and STDs
3. Attitudes, values and beliefs about sexual behavior, use of condoms and other forms of contraception, pregnancy, childbearing and STDs
4. Perception of peer norms about sexual behavior and use of condoms and contraception
5. Self-efficacy and skills to avoid undesired sex or to use condoms or other forms of contraception
6. Intentions to avoid undesired sex or to use condoms or other forms of contraception
7. Parent-child communication about adolescent sexual behavior, condoms or other forms of contraception, pregnancy, childbearing and STDs

These factors are important because appropriate curriculum-based activities have the capability of addressing and improving them, and each of these factors, in turn, has an impact on actual sexual behavior.

The previous chapters also have provided instructional principles. These are important because activities that incorporate the principles for addressing each factor are more likely to have an impact on that factor than activities that do not incorporate these instructional principles.

The previous chapters included many theories, results from hundreds of studies and a large number of principles for effectively changing the seven factors. All of this can be overwhelming when people are faced with applying this material to develop or adapt a curriculum. Fortunately, some of the instructional principles that are important for addressing one factor are also important for addressing others. This overlap makes the process of using the information simpler.

Table 10-1 (p. 125) presents many of the most important instructional principles and the factors to which they should be applied. The table can be used as a checklist for curricula being considered, adapted or created.

Applying These Principles to Existing Curricula or to the Development of New Ones

If you are revising or adapting existing curricula, you should:

1. Create a matrix specifying 1) all the factors you wish to address (across the top as column headings) and 2) all the activities you intend to include in the curriculum (down the side as row headings). See Figure 10-1 (p. 121).
2. Review each activity in the curriculum and assess which, if any, of the seven factors (or other potentially important factors) the activity addresses and put a "✓" in the appropriate cell in the matrix, indicating the factor is addressed by the activity. See Figure 10-1.
3. After reviewing all the activities and putting "✓"s in the appropriate cells, make sure that a sufficient number of factors are addressed by activities. (Typically, several factors affecting a particular behavior need to be addressed in order to markedly change that behavior.)
4. Make sure the activities addressing each factor are sufficiently strong to affect the factor. (Typically, multiple activities are needed to markedly change any factor.)
5. For all the activities that address each factor, incorporate as many of the instructional principles from the appropriate chapter as possible. For example, incorporate the principles for improving self-efficacy to the activities that are designed to increase self-efficacy.
6. By reviewing all the revised activities that address each factor, assess realistically whether those activities collectively will markedly improve the factor addressed. If not, then either improve the existing activities or add more activities. For example, assess whether the activities designed to improve self-efficacy to avoid situations that might lead to undesired sex are sufficient to improve self-efficacy to avoid those situations. If not, improve the activities or add new, effective ones. If an activity is fun, but doesn't really contribute toward moving youth to behavior change, then it may need to be dropped or modified to improve the curriculum's fit with the goals of the program.

If you are creating new curricula, then you should first identify which set of factors you are going to address based on your population needs, review the chapters in this book and others that address theory-based approaches for changing the factors, and then select or revise activities from existing curricula (with appropriate permission) or develop entirely new ones. Then you should complete the steps above. Other excellent resources exist for designing effective curricula (Bartholomew, Parcel et al. 2006).

There is much more to adapting existing curricula than the six steps above suggest. However, the principles of adaptation are beyond the scope of this book. Fortunately, other excellent resources exist for adapting widely implemented curricula (Rolleri, Fuller et al., unpublished).

Figure 10-1 Assessing Factors in Curricula

	Knowledge	Perception of risk of pregnancy and STD	Attitudes and values regarding sex and # of partners	Attitudes and values regarding condoms/ contraception	Perceptions of peer norms regarding sex, # partners and condoms/ contraception	Self-efficacy to avoid unwanted sex	Self-efficacy to insist on condoms/ contraception	Self-efficacy to use condoms/ contraception correctly	Intentions to abstain or use condoms/ contraception	Parent-child communication regarding sex, # partners, and condoms/ contraception
Specify Activity 1	✓ ✓ ✓									
Specify Activity 2										
Specify Activity 3										
Continue for all activities										

✓ ✓ ✓ In each cell, specify whether the activity identified on the left can significantly improve the factor above.

Notes:

1. Typically, multiple activities are needed to significantly improve each factor.
2. Often, factors need to be specified more precisely than in the example above.

Final Activities—Conducting Focused Reviews and Pilot Testing

The final phase of developing or adapting your curriculum should include two types of activities: 1) using focused reviews to assess the entire curriculum for specific instructional principles, inadvertent biases and/or imbalances that may not be as obvious in any single lesson and 2) pilot testing individual activities as well as the entire curriculum.

To conduct focused reviews, read a draft version of the entire curriculum for specific characteristics (e.g., key instructional principles or biases) that, if not addressed, could reduce its relevance or impact. The approach requires that one or more internal staff review the lessons with a single focus one at a time (e.g., inclusiveness for sexual minority youth—i.e., gay, lesbian, bisexual and questioning youth, or the cognitive level of the objectives). Reviewing a curriculum for a single issue is more productive in identifying inconsistencies or imbalances than trying to consider all issues during a single reading. A few of the key areas for review are highlighted below.

Reviewing for Instructional Design Issues

- **Types of activities.** One review pass should focus on the types of activities (learning strategies) used across the lessons. Most critically, these strategies should reflect the theory-based approaches for changing the targeted risk and protective factors as outlined in this and other books. They also should be aligned with the program goals and

learning objectives. (See Box 3-1 for examples of commonly used types of activities.) Curriculum developers then should fine-tune activities to ensure the curriculum uses an array of strategies that appeal to a range of learning styles (e.g., print, oral, visual, kinesthetic).

Another review pass for the learning strategies should focus on the level of student interaction and/or collaboration included in the planned activities. As noted in Chapter 3, this literature suggests that interactive and collaborative strategies are more effective at promoting learning than less interactive strategies. Activities that are less interactive (e.g., watching a video), can be enhanced with the addition of a brief collaborative activity following the video (asking students to watch and listen for two new insights or "learnings" on HIV or other STDs and then turning to a partner after the video to share those insights). While completing the focused review of the instructional strategies, it might be helpful to create a tally or table showing the types of strategies used across the curriculum (e.g., mini lecture, large-group discussion, small-group discussion, roleplay, quiz, game) to ensure the curriculum uses a range of theory-based, interactive strategies that address different learning styles.

- **Time allocation per activity.** Another focused review should center on the time allocated for each activity. During development, it is easy to underestimate the time needed for a particular activity, which contributes to creating overcrowded lessons that lack time for discussion, reflection and personalization. This focused review should be completed by staff members or others who have experience or expertise with the timing of activities. Reviewers also should look for timing-related issues such as the number of transitions required in a single lesson and how much disruption is likely to occur as a result of the transitions. Lessons with numerous transitions may result in significant time loss simply due to the transition process.
- **Sequencing of lessons.** Reviewers also should assess the lesson sequencing, looking for possible adjustments within or across lessons. One approach to sequencing, the deductive approach, moves from providing concepts and information to analysis and specific inferences and application (Hedgepeth and Helmich 1996), which is similar to the levels of Bloom's taxonomy. Another strategy is to include activities that first establish motivation for avoiding sexual risk taking and then addressing attitudes and skills to reduce sexual risk taking. Further, skill lessons should be sequenced to build on each other, from the less complex tasks and situations to more complex.

Reviewing for Content Issues

- **Inclusion of key messages.** Research shows that programs with clear messages have been more successful in reducing risk behaviors than in those that lack such messages (Kirby 2007). These messages should be balanced and consistent with the overall goals of the program; should be developmentally, linguistically and culturally appropriate; and should be used repeatedly throughout the lessons. This review pass would be used to ensure the curriculum's key messages are woven throughout the lessons and that they incorporate the characteristics just noted (e.g., balanced, consistent with program goals).
- **Inclusiveness and biases (e.g., gender, racial, sexual orientation).** This review pass should focus expressly on identifying biases in content and/or activities that exclude sub-groups of youth (e.g., sexual minority youth) or portray them in a stereotypical fashion. Reviewers should center on factors such as the language used in the curriculum, key messages, roleplay scenarios, stories, examples and names used in roleplays and other activities, noting any instances in which the content is biased or excludes individuals based on characteristics such as gender, race/ethnicity, or sexual orientation. For example, a curriculum in which all roleplay scenarios depict males pressuring females could be considered biased; it also excludes pressure situations that might arise for

sexual minority youth and pressure situations that involve friends pressuring each other to go beyond their personal limits.

Simple changes in language or situations can help balance the scenarios to which youth respond. Other strategies, such as allowing youth to change the scenarios to make them more realistic, also can achieve more balance. Similarly, using roleplay scenarios that only depict situations in which individuals are having sex and not situations in which individuals are choosing abstinence is unbalanced and may feel irrelevant to youth who are making that choice. One option to broaden relevance is to present multiple scenarios for each roleplay and allow a variety of youth to select which ones they believe are most realistic. Finally, this review pass can also be used to make the lessons more gender neutral (e.g., using the terms sexual partner, or one's partner in place of boyfriend or girlfriend) to ensure the program is inclusive of sexual minority youth.

Pilot Testing

Before implementing a curriculum widely, pilot test and observe the implementation of individual activities, lessons and the entire curriculum with participants similar to the intended population. This process is an essential element of program development and provides an opportunity to see how students respond to the content and strategies, to assess whether the lessons generate the expected discussions and reflections, and to collect feedback and suggested changes from participants (see Box 10-1 for examples of pilot test probes). Pilot testing also allows developers to test out activity and/or lesson sequences and test the time allocations for specific activities and lessons.

Numerous resources are available to provide more detailed steps for conducting formative research. Some key considerations are highlighted below.

- **Small-scale pilot testing of individual activities.** This type of pilot testing typically involves assembling small groups of youth and implementing selected activities. Youth are asked to provide feedback on the activities and share thoughts on how to improve them. For the best results, be sure to actually implement the activities as part of these small-scale pilot testing events, rather than having youth just read and review them, since youth will be better able to provide feedback if they experience the instruction. It also gives developers a chance to see the activities in action. Small-scale pilot testing also can be accomplished by establishing a youth advisory committee whose members serve as an ongoing feedback and pilot test group. Youth involved in these activities generally receive a stipend or gift certificate for their time and participation as well as recognition for their contributions.
- **Small-scale pilot testing of individual lessons.** Once individual activities have been tested with youth, it is helpful to test entire lessons to examine sequence and timing issues and to get a sense of the likely impact of a lesson. This type of pilot testing is ideally done in the setting in which the curriculum will be used (e.g., a classroom or an after-school program). This type of pilot testing also could be done with a youth advisory group. Schools and community agencies generally are willing to partner for these types of activities, particularly if they receive small incentives (e.g., classroom supplies).

Box 10-1 Potential Pilot Test Probes

- If you were to describe the main points of this activity (lesson/program) to a friend, how would you describe them?
- Using your thumbs, how would you rate this activity: thumbs up, thumbs down, or thumbs sideways?
- How can we make this activity (lesson/program) better?
- What part of the activity (lesson/program) do you think will be of most interest to other teens your age? What about least interesting?
- What did you think of (insert specific area of interest)?
- We've posted several pieces of chart paper on the wall for today's lesson. Please write three words that describe what you think other teens would say about this lesson.

- **Full curriculum pilot test.** Testing the entire curriculum is extremely useful as a final step in the development process. This type of pilot test not only provides invaluable data on sequencing, timing and potential impact, but also provides educators with an opportunity to practice using the content before the program is delivered and evaluated. This type of pilot testing typically involves partnering with a school or community-based agency to deliver the entire curriculum to at least one (and ideally two or three) groups of youth similar to the intended population.

To maximize the pilot test opportunities, observers should:

- Have a copy of the activity or lesson in front of them
- Time each activity
- Watch and listen to students and how they move through an activity (noting key comments and questions)
- Note key phrases used by the educators during the activity
- Note immediate reactions to the activity or lesson

These notes should be used as part of an immediate debrief process, along with input from students (e.g., simple thumbs up, down, or sideways polls; brief feedback forms; general comments and reactions; and suggestions for improvements).

Table 10-1 Instructional Principles Important for Each Factor

	Chapter 3 Knowledge	Chapter 4 Perception of Risk	Chapter 5 Attitudes, Values, Beliefs	Chapter 6 Perception of Peer Norms	Chapter 7 Self-Efficacy and Skills	Chapter 8 Intentions	Chapter 9 Parent-Child Communication
Environment							
• The educator should make sure the environment is conducive to the thoughtful consideration of new information (e.g., minimize distractions)	✓	✓	✓	✓	✓	✓	
• The educator should make sure the classroom is a safe social environment for young people to participate	✓	✓	✓	✓	✓	✓	
Specific Content and Instructional Strategies							
Topics should be relevant to young people's lives	✓	✓	✓	✓	✓	✓	✓
Activities should:							
• Cover topics about sexuality that are important to young people	✓						
• Emphasize the risks of unprotected sex	✓	✓	✓	✓	✓	✓	✓
• Present credible research-based evidence describing both actual behavior and expressed norms about that behavior	✓			✓			
• Identify and describe common situations that may lead to undesired, unplanned or unprotected sex	✓	✓			✓		
• Repeatedly emphasize a clear and appropriate message about how to avoid and reduce sexual risks	✓	✓	✓		✓	✓	
• Include strong arguments in their messages about behavior that have the greatest appeal and impact	✓		✓				
• Provide arguments about behavior that are new, strong, and personally relevant to the students	✓		✓				
• Combine appropriate use of fear with a clear message about how to avoid the undesirable outcomes	✓	✓	✓			✓	
• Use cognitive dissonance to change attitudes by demonstrating that specific attitudes to be changed are inconsistent with more fundamental and important values or attitudes, as appropriate			✓				
• Increase skills and self-efficacy to: o Avoid situations that might lead to undesired or unprotected sex o Refrain from and refuse undesired, unintended or unprotected sex o Obtain condoms or other forms of contraception o Insist on using condoms or other forms of contraception, if having sex o Actually use condoms or other forms of contraception effectively, if having sex	✓	✓		✓	✓	✓	
• Demonstrate concepts and skills to students rather than simply describe them	✓		✓	✓	✓		
• Model desired behaviors (e.g., refusal skills and condom use skills) and have youth practice and model the desired behavior to others	✓			✓	✓		
• Break down complex concepts or skills into a progression of smaller concepts or skills, with the smaller concepts or skills taught first, followed by a logical progression to more complex skills	✓				✓		
• Break refusal and communication skills into simpler steps that are modeled and then practiced; begin with scripted roleplays and easier situations and then move to unscripted roleplays and more difficult situations	✓				✓		
• Use praise and encouragement to prompt students with new skills					✓		

(Continued)

Table 10-1 Instructional Principles Important for Each Factor *(Continued)*

	Chapter 3 Knowledge	Chapter 4 Perception of Risk	Chapter 5 Attitudes, Values, Beliefs	Chapter 6 Perception of Peer Norms	Chapter 7 Self-Efficacy and Skills	Chapter 8 Intentions	Chapter 9 Parent-Child Communication
Specific Content and Instructional Strategies *(Continued)*							
Activities should:							
• Provide the proper balance of challenge and support	✓				✓		
• Structure skill-building activities so that students are challenged, but do not fail					✓		
• Create positive physical and emotional associations with healthy sexual behaviors and diminish negative associations with these behaviors			✓		✓		
• Help students assess all that they have learned and then formulate and clarify their intentions						✓	
• Pose typical situations or dilemmas confronted by youth and students to make decisions about the healthiest choices	✓	✓	✓	✓	✓		
• Help students make commitments to themselves or to others to implement their intentions						✓	
• Help students create a clear plan for implementing intentions						✓	
• Help students identify possible barriers to implementing their intentions and methods of overcoming them so that they are more likely to implement their intentions						✓	
• Include homework assignments or other activities to have students talk with their parents about their beliefs about young people having sex and use of condoms or other forms of contraception			✓				✓
General Instructional Methods							
• Instructional material should build on existing knowledge as a foundation for new knowledge	✓						
• Students should be actively engaged in activities and solving problems	✓	✓	✓	✓	✓		
• Activities should help students organize their new concepts and skills, e.g., by providing a clear message about ways to avoid or reduce sexual risk	✓	✓	✓		✓	✓	
• Activities should encourage students to apply new knowledge multiple times to different problems	✓	✓	✓	✓	✓		
• Activities should help students apply or integrate their new knowledge or skill into their everyday lives	✓		✓	✓	✓	✓	
• Instructional material and methods should be tailored to the characteristics of the students, their needs, and their communities	✓	✓	✓	✓	✓	✓	✓
o Both the content and instructional methods should be tailored to the students' gender, age, knowledge level and level of sexual experience	✓	✓	✓	✓	✓	✓	✓
o Curricula should include arguments and activities that are effective with students at different stages of change towards adopting a particular behavior	✓		✓				
o Activities should address specific attitudes, values and skills that need to be improved	✓	✓	✓	✓	✓	✓	

(Continued)

Table 10-1 Instructional Principles Important for Each Factor *(Continued)*

	Chapter 3 Knowledge	Chapter 4 Perception of Risk	Chapter 5 Attitudes, Values, Beliefs	Chapter 6 Perception of Peer Norms	Chapter 7 Self-Efficacy and Skills	Chapter 8 Intentions	Chapter 9 Parent-Child Communication
General Instructional Methods *(Continued)*							
• Activities should include an array of different types of teaching methods, including:	✓	✓	✓	✓	✓	✓	✓
o A variety of teaching methods to describe, illustrate, model and personalize the likelihood and consequences of becoming pregnant or contracting an STD	✓	✓	✓			✓	
o A variety of methods to produce thoughtful critical examination of new arguments and messages by the students	✓		✓				
o More than one method to increase teens' self-efficacy (e.g., mastery, vicarious experiences, social persuasion and improvements in physical and emotional associations)	✓				✓		
• Multiple examples should be provided	✓	✓	✓	✓	✓		
• Repeat and reinforce the arguments and messages in different ways over time	✓	✓	✓	✓	✓	✓	✓
• Instruction should be individualized, when feasible	✓	✓	✓	✓	✓	✓	✓
• Students should work regularly with other students in small groups	✓	✓	✓	✓	✓	✓	
• Students' knowledge and skills should be assessed appropriately	✓						
• To the extent feasible, educators should make sure that the students are exposed to risk avoidance or reduction messages and arguments, pay attention to them, comprehend them, accept them, integrate them, feel good about them and retain them			✓		✓	✓	
• Credible, respected and trusted people should present new material and arguments and model desired behavior; to the extent appropriate, these people should be similar and familiar to the students	✓	✓	✓	✓	✓	✓	
• People with close connections to the students (e.g., parents or peers) should present or reinforce information and arguments favoring healthy behaviors	✓	✓	✓	✓			

Glossary

Adaptation The process of modifying an intervention, curriculum or program without removing or contradicting the core elements or internal logic.

Affective The feelings or emotional state of an individual.

Attitudes Positive or negative evaluations that people have of other people, objects, activities, concepts and many other phenomena.

Behavior change theory A structured set of understandings that describe, predict and explain why people act as they do and how to change what they do. These understandings underlie interventions to change health behaviors.

Behavioral capability The ability to do something, which typically requires both the knowledge of what is to be done and the skills needed to do it.

Belief A statement or proposition, declared or implied, that is accepted as true by a person or group.

Causal relationships Two factors are causally related if one of them is the direct result of the other.

Cognitive Knowledge gained through perception, reasoning, or intuition.

Cognitive dissonance Conflict between a person's beliefs and behaviors.

Contraception A general term for methods to prevent pregnancy.

Concurrent sexual partners Two or more sexual relationships overlapping in time.

Correlation A statistical measure of the degree of relationship between variables.

Curriculum-based programs Instructional methods that use an educational plan incorporating a structured, developmentally appropriate series of intended learning outcomes and associated learning experiences for students, typically in classroom instruction or after school.

Determinants Factors hypothesized to affect outcomes, such as individual factors (e.g., beliefs, perceptions, attitudes, values and skills); demographic factors; environmental factors; or aspects of a particular social, economic, educational, healthcare or cultural system.

Developed countries Countries in which citizens usually have access to a wide range of publicly provided and private services in health, education, social welfare, housing, transport, commercial and industrial sectors, as well as state-supported defense and security services.

Empirical evidence Based directly on experience, e.g., observation or experiment, rather than on reasoning alone.

Forced-choice voting activities An activity often used in youth pregnancy/HIV/STD prevention programs to address peer pressure. The activity provides a scenario or question and participants are required to make a decision based on two choices and move to a designated area in a room that represents the choice. Discussion follows to address whether decisions were influenced by another person, how it feels to be alone on one side of the room, what role peer pressure could play in decision making and what reasons the person has for holding that position.

Formative evaluation Gathering information during the early stages of a project or program, with a focus on finding out whether efforts are unfolding as planned, uncovering any obstacles or unexpected opportunities that may have emerged, and identifying needed adjustments and corrections to the program.

Human Papillomavirus (HPV) A sexually transmitted disease.

Incidence The number of new cases of a disease in a defined population, within a specified period of time.

Information-Motivation-Behavioral Skills Model (IMB) The model that states HIV prevention information and motivation work through preventive behavioral skills to influence risk reduction behaviors.

Instructional principles Standards or guidelines that can help improve the quality of instruction.

Intentions Courses of action that people expect to follow.

Intervention mapping A framework for health education intervention development consisting of five steps: (1) creating a matrix of proximal program objectives, (2) selecting theory-based intervention methods and practical strategies, (3) designing and organizing a program, (4) specifying adoption and implementation plans, and (5) generating program evaluation plans.

Invulnerability The belief that one will not be injured, damaged or wounded. Some people believe this characterizes adolescent beliefs about risk behaviors.

Learning objective A brief, clear, specific statement of what participants will be able to perform at the conclusion of instructional activities.

Logic model A pictorial diagram that shows the relationship among program components, activities and desired health outcomes.

Normative messages Communications directed toward a targeted group (such as youth) designed to convey expectations or standards of expected or acceptable behavior.

Norms Standards of expected or acceptable behavior for a specific group.

Parent-child connectedness The strength of the emotional bond between parent and child and the degree to which this bond is both mutual and sustained over time.

Pedagogical principles Instructional principles that increase learning.

Pedagogy Teaching methods; the principles and methods of instruction.

Perceptions of peer norms What individuals believe that others like themselves believe is expected or acceptable for them to do.

Perceptions of risk The extent to which individuals feel they are subject to a health threat.

Pilot testing Trying out research interventions and methods or health education programs and projects to uncover problems or identifying improvements before the actual program or research project is launched.

Poll A questioning or canvassing of persons selected at random or by quota to obtain information or opinions to be analyzed.

Prevalence The number of events, e.g., instances of a given disease or other condition in a given population at a designated time.

Principle A rule or standard.

Protective factor A factor that reduces the likelihood that a particular disease or adverse health outcome will occur.

Reciprocal causality Two events directly influence each other simultaneously.

Representative survey A survey with a sample that well represents the population from which the sample is drawn, e.g., a survey based on a large randomly selected sample.

Risk factor A factor that increases the chances of a negative behavior or outcome, or reduces the chances of a positive behavior or outcome.

Roleplay An educational and training method that allows learners to practice new communication skills in life-like vignettes or dramas.

Self-efficacy Confidence in one's ability to engage in a behavior successfully.

Sequential sexual partners Two or more non-overlapping sexual relationships.

Sexual networks Group of persons who are connected to one another through sexual activity.

Sexual psychosocial factors Factors such as knowledge, perceptions of risk, attitudes, perceptions of norms, self-efficacy, and intentions related to sexual activity.

Severity The seriousness of a condition and its consequences.

Simulation An interactive educational activity that demonstrates a particular phenomenon or principle, such as the number of young people that get pregnant in a year if not using protection.

Skills Capability of accomplishing something with precision and certainty.

STD or HIV education program An intervention based on a written curriculum implemented among groups of youth in schools, clinics, or other community settings to reduce adolescent sexual risk behaviors and, ultimately, STDs, including HIV.

Social cognitive theory A structured set of ideas that stress the dynamic interrelationships among people, their behavior, and their environment.

Social persuasion A change in an individual's thoughts, feelings or behaviors caused by other people.

Stages of Change Theory Also called the transtheoretical model; the sequence of stages a person goes through when attempting to change a behavior: precontemplation, contemplation, decision, action and maintenance.

Susceptibility Vulnerability, often specific to particular threats.

Taxonomies of learning The classification of forms and levels of learning into different domains.

Teachable moment A moment that presents an opportunity to talk about or reinforce important information, attitudes, beliefs, values or behaviors.

Theory of Planned Behavior An extension of the theory of reasoned action that incorporates a person's attitudes toward a behavior.

Theory of Reasoned Action A social-psychological model of voluntary behavior based on the assumption that intentions are the most immediate influence on behavior.

Undesired sexual activity Sexual activity that is not wanted by the people involved.

Unplanned sex Sex that is not planned ahead of time.

Unprotected sex Sex that is not protected by condoms or other methods of contraception to reduce the risk of pregnancy or STD.

Values General and highly esteemed attitudes or beliefs that affect decision making.

Resources

Three kinds of resources are provided in this appendix. The first set of resources provides information to identify science-based programs and curricula to prevent unintended pregnancy, HIV, and other STDs. These resources identify specific curricula or provide tools to assess them.

The second set of resources provides data on adolescent reproductive health. The third set of resources lists health education tools to provide effective health education programs and curricula.

This is not an exhaustive list; rather, these are resources that are readily available from the Internet, free, and relatively easy-to-use.

Science-Based Programs and Curricula to Prevent Unintended Pregnancy, HIV and Other STDs

Federal and non-federal resources to identify science-based programs and curricula

Federal Resources

Compendium of HIV Prevention Interventions with Evidence of Effectiveness
(this list focuses on non-school based programs)
http://www.cdc.gov/hiv/resources/reports/hiv_compendium/

Replicating Effective Programs Plus
http://www.cdc.gov/hiv/topics/prev_prog/rep/index.htm

Programs for Replication—Intervention Implementation Reports
http://www.hhs.gov/ash/oah/prevention/research/programs/index.html

Promoting Science-Based Approaches to Prevent Teen Pregnancy
http://www.cdc.gov/reproductivehealth/AdolescentReproHealth/ScienceApproach.htm

National Registry of Evidence-Based Programs and Practices (NREPP)
http://nrepp.samhsa.gov/

Non-Federal Resources

Child Trends Guide to Effective Programs for Children and Youth: Teen Pregnancy and Reproductive Health
http://www.childtrends.org/Lifecourse/programs_ages_teenpregreprohealth.htm

Child Trends "What Works" program table for reproductive health
http://www.childtrends.org/what_works/youth_development/table_adrehealth.asp

Diffusion of Effective Behavioral Interventions (DEBI): Science-Based Interventions That Work
http://www.effectiveinterventions.org/en/home.aspx

Innovative Approaches to Increase Parent-Child Communication About Sexuality: Their Impact and Examples from the Field. (2002). New York, NY: Sexuality Information and Education Council of the United States (SIECUS).
http://apha.confex.com/apha/132am/techprogram/paper_78986.htm

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http://www.socio.com/pasha.php

Resource Center for Adolescent Pregnancy Prevention
http://www.etr.org/recapp

Science and Success, Second Edition: Sex Education and Other Programs That Work to Prevent Teen Pregnancy, HIV and Sexually Transmitted Infections. (2008). Washington DC: Advocates for Youth.
www.advocatesforyouth.org/programsthatwork

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Tools to assess, select, or adapt programs and curricula

The School Health Index (SHI): Self-Assessment and Planning Guide was developed by CDC in partnership with school administrators and staff, school health experts, parents, and national nongovernmental health and education agencies for the purpose of enabling schools to identify strengths and weaknesses of health and safety policies and programs, enabling schools to develop an action plan for improving student health, which can be incorporated into the School Improvement Plan, and engaging teachers, parents, students, and the community in promoting health-enhancing behaviors and better health.

http://www.cdc.gov/HealthyYouth/SHI/introduction.htm

Health Education Curriculum Analysis Tool (HECAT). The Health Education Curriculum Analysis Tool (HECAT) can help school districts, schools, and others conduct a clear, complete, and consistent analysis of health education curricula based on the National Health Education Standards and CDC's Characteristics of Effective Health Education Curricula. The HECAT results can help schools select or develop appropriate and effective health education curricula and improve the delivery of health education to address sexual health and other health education topics. The HECAT can be customized to meet local community needs and conform to the curriculum requirements of the state or school district. The Sexual Health Module contains the tools to analyze and score curricula that are intended to promote sexual health and prevent risk-related health problems, including teen pregnancy, Human Immunodeficiency Virus (HIV) infection, and other sexually transmitted diseases (STD). This module can be used to analyze curricula emphasizing sexual risk avoidance (abstinence) and sexual risk reduction.

http://www.cdc.gov/HealthyYouth/HECAT/index.htm

Characteristics of Effective Sex and STD/HIV Education Programs

CDC's School Health Education Resources (SHER): Characteristics of an Effective Health Education Curriculum

http://www.cdc.gov/HealthyYouth/SHER/characteristics/index.htm

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http://www.etr.org/recapp/documents/programs/tac.pdf

Data Sources on Adolescent Reproductive Health

Federal and Non-Federal National Data Resources

Federal Resources

AIDS.gov
http://www.aids.gov/

Centers for Disease Control and Prevention Division of Adolescent and School Health
http://www.cdc.gov/healthyyouth/

Centers for Disease Control and Prevention Division of HIV and AIDS Prevention
http://www.cdc.gov/hiv/topics/research/index.htm

Centers for Disease Control and Prevention Division of Reproductive Health
http://www.cdc.gov/reproductivehealth/index.htm

Centers for Disease Control and Prevention: HIV/AIDS Surveillance
www.cdc.gov/hiv/

Centers for Disease Control and Prevention: Reproductive Health Atlas
http://www.cdc.gov/Features/AtlasReproductiveHealth/

Centers for Disease Control and Prevention: Sexually Transmitted Disease Surveillance
www.cdc.gov/std/

Healthy People 2010
http://www.healthypeople.gov/

Office of Population Affairs, Office of Adolescent Pregnancy Programs
http://www.hhs.gov/opa/

National Center for Health Statistics
www.cdc.gov/nchs/

National Longitudinal Study of Adolescent Health (Add Health)
http://www.cpc.unc.edu/projects/addhealth

National Institutes of Health
http://www.nih.gov/

National Mental Health Information Center
http://www.mentalhealth.samhsa.gov/

National Prevention Information Network
http://www.cdcnpin.org/scripts/index.asp

National Survey of Family Growth (NSFG)
http://www.cdc.gov/nchs/nsfg.htm

Youth Behavior Risk Surveillance Data
http://www.cdc.gov/HealthyYouth/yrbs/index.htm

Obtaining Published Local Adolescent Reproductive Health Data

- State Pregnancy Prevention Coalition
- State or County Department of Health
- State or County Office of Minority Health
- State or County Department of Education
- Local HIV Planning Board
- Local Foundations (e.g., United Way)
- Local Community-Based Organizations (e.g., Planned Parenthood, Boys and Girls Club, etc.)
- Local Universities

Non-Federal Resources

Child Trends
www.childtrends.org

Child Trends Data Bank
www.childtrendsdatabank.org

Data Resource Center for Child and Adolescent Health
http://www.childhealthdata.org/content/Default.aspx

Guttmacher Institute
www.guttmacher.org

Kaiser Family Foundation
www.kff.org

Kids Count
www.aecf.org/kidscount/

National Campaign to Prevent Teen and Unplanned Pregnancy
http://www.thenationalcampaign.org/

State Health Facts On-Line
www.statehealthfacts.kff.org

Health Education Resources

Health Education and Health Behavior Theory

Federal Resources

Motivational Interviewing
http://www.health.nsw.gov.au/public-health/dpb/supplements/supp6.pdf

Theory at a Glance: A Guide for Health Promotion Practice
http://www.nci.nih.gov/theory/pdf

Non-Federal Resources

Ecological Systems Theory
http://pt3.nl.edu/paquetteryanwebquest.pdf

Health Belief Model
http://www.etr.org/recapp/index.cfm?fuseaction=pages.TopicsInBriefDetailandPageID=51

Social Learning (Cognitive) Theory
http://www.etr.org/recapp/index.cfm?fuseaction=pages.TheoriesDetailandPageID=380

Stages of Change Theory
http://www.etr.org/recapp/index.cfm?fuseaction=pages.theoriesdetailandPageID=360

Theory of Reasoned Action/Planned Behavior
http://www.etr.org/recapp/index.cfm?fuseaction=pages.TheoriesDetailandPageID=517

Health Education and Health Belief Theory

Instructional Methods/Pedagogy

Non-Federal Resources

Best Practices: Social Norms
http://wch.uhs.wisc.edu/13-Eval/Tools/Resources/Social%20Norms.pdf

Changing Social Norms
http://www.etr.org/recapp/index.cfm?fuseaction=pages.ProfessionalCreditsDetailandPageID=229

Classroom Management to Promote Learning
http://www.etr.org/recapp/index.cfm?fuseaction=pages.EducatorSkillsDetailandPageID=78

Cooperative Learning
http://edtech.kennesaw.edu/intech/cooperativelearning.htm

Constructivist Theory
http://www.exploratorium.edu/ifi/resources/constructivistlearning.html

Elaboration Likelihood Model (ELM)
http://www.cios.org/encyclopedia/persuasion/Helaboration_1likelihood.htm

Guiding Large-Group Discussions
http://www.etr.org/recapp/index.cfm?fuseaction=pages.EducatorSkillsDetailandPageID=82

Instructional Design Models – University of Colorado at Denver
http://carbon.ucdenver.edu/~mryder/reflect/idmodels.html

M. David Merrill, First Principles of Instruction
http://mdavidmerrill.com/Papers/firstprinciplesbymerrill.pdf

Managing Small Groups
http://www.etr.org/recapp/index.cfm?fuseaction=pages.EducatorSkillsDetailandPageID=87

Principles of Adult Learning
http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/adults-2.htm

Principles of Teaching and Learning
http://www.cmu.edu/teaching/principles/

Roleplay for Behavioral Practice
http://www.etr.org/recapp/index.cfm?fuseaction=pages.EducatorSkillsDetailandPageID=94

Self-efficacy
http://en.wikipedia.org/wiki/Self-efficacy

Theory of Reasoned Action
http://www.cios.org/encyclopedia/persuasion/Gtheory_1reasoned.htm

Theory of Reasoned Action
http://en.wikipedia.org/wiki/Theory_of_reasoned_action

Program Fidelity and Adaptation

Federal Resources

Backer, T.E. (2002). *Finding the Balance: Program Fidelity and Adaptation in Substance Abuse Prevention.* Rockville, MD: Substance Abuse and Mental Health Services Administration.
http://sshs.promoteprevent.org/resources/finding-balance-program-fidelity-and-adaptation-substance-abuse-prevention

Non-Federal Resources

Adaptation
http://www.healthyteennetwork.org/index.asp?Type=B_BASIC&SEC=%7BE8F6E426-AID8-4DBC-8CCF-1C68EB3BFEDB%7D&DE=%7B1EE1BD19-468D-918B-F36FA6134243%7D

Practice Profiles for Get Real About AIDS and Reducing the Risk. (1999). Santa Cruz, CA: ETR Associates.
http://www.etr.org/recapp/index.cfm?fuseaction=pages.TheoriesDetailandPageID=547

Cultural Competency Resources

Federal Resources

Bancroft, M. (2002). Cultural Competence and Reproductive Health: A Guide to Services for Immigrants and Refugees. Philadelphia, PA: DHHS Region III Family Planning Training Center.
www.region3ipp.org/datadir/200772145314.pdf

Centers for Disease Control and Prevention, National Prevention Information Network (NPIN)
www.cdcnpin.org/scripts/population/culture.asp

Health Resources and Services Administration (HRSA): Cultural Competence Resources for Health Care Providers
www.hrsa.gov/culturalcompetence

Management Sciences for Health. Provider's Guide to Quality and Culture
http://erc.msh.org/mainpage.cfm?file=1.0.htmandmodule=providerandlanguage=English

Office of Minority Health (OMH)
www.cdc.gov/omhd

Non-Federal Resources

Advocates for Youth, Cultural Competency and Adolescent Reproductive and Sexual Health
www.advocatesforyouth.org/culturalcompetency.htm

Advocates for Youth, MySistahs
http://www.advocatesforyouth.org/index.php?option=com_contentandtask=viewandid=796andItemid=115

Advocates for Youth, Young Women of Color Initiative
www.advocatesforyouth.org/about/ywoc.htm

aha! Process
www.ahaprocess.com

Community Tool Box
http://ctb.ku.edu/tools/enhancecompetence/index.jsp

Diversity Rx. Resources for Cross Cultural Health Care (RCCHC) and Drexel University School of Public Health's Center for Health Equality
www.diversityrx.org

Esack, F., Alam, S. and Kabir, B. (2007). HIV, AIDS, and Islam: A Workshop Manual Based on Compassion, Responsibility and Justice. Washington, DC: Communities Responding to the HIV/AIDS Epidemic.
www.coreinitiative.org/Resources/Publications/CORE_PM.pdf

Expanding the Movement for Empowerment and Reproductive Justice (EMERJ)
http://reproductivejustice.org/emerj

Family Health International, YouthNet Program
www.infoforhealth.org/youthwg/pubs/youthnet.shtml

Georgetown University, National Center for Cultural Competence (NCCC)
http://www11.georgetown.edu/research/gucchd/nccc

Inter-University Consortium for Political and Social Research, Minority Data Resource Center
www.icpsr.umich.edu/MDRC

James Bowman Associates, Reaching New Heights. Assessing Organizational Capacity to Provide Culturally Competent Services (brochure)
www.jamesbowmanassociates.com/projects.html

Kennedy, E., Jacinta Bronte-Tinkew, J., and Matthews, G. (2007). Enhancing Cultural Competence in Out-of-School Time Programs: What Is It, and Why Is It Important? Washington, DC: Child Trends.
http://www.childtrends.org/files//child_trends-2007_01_31_rb_culturecompt.pdf

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http://www.training3info.org/resources_manuals.aspx

Resource Center for Adolescent Pregnancy Prevention. Racial/Ethnic Disparities and Cultural Competency in Teen Pregnancy, STD and HIV Prevention (presentation)
http://www.etr.org/recapp/index.cfm?fuseaction=pages.currentresearchdetailandPageID=440andPageTypeID=18

SIECUS. Annotated Bibliography: Culturally Competent Sexuality Education Resources
http://www.thefreelibrary.com/A+SIECUS+annotated+bibliography%3A+Culturally+Competent+Sexuality...-a090888997

The SisterSong Women of Color Reproductive Health Collective
www.sistersong.net/index.html

Tools for Building Culturally Competent HIV Prevention Programs
www.socio.com/srch/summary/misc/happubl3.htm

UCLA. School Mental Health Project
http://smhp.psych.ucla.edu

University of Michigan. Program for Multicultural Health
http://med.umich.edu/multicultural/ccp/tools.htm

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http://ncsall.net/?id=126

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http://www.joe.org/joe/2001december/iw1.php

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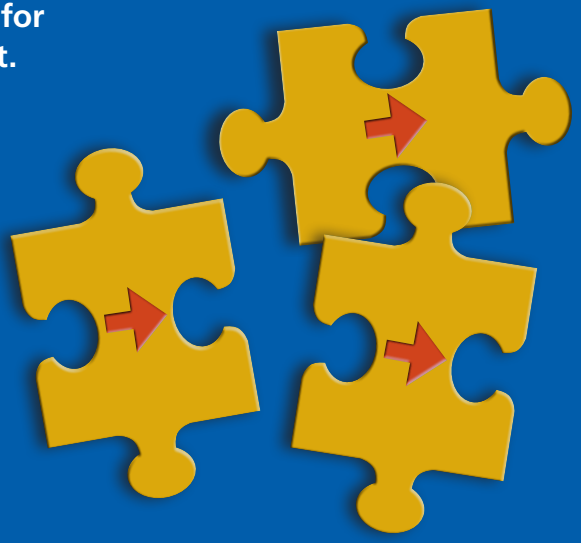

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