16. I cannot stand for my partner to be less than a satisfying sexual partner.
17. I seldom feel the need to be a “perfect” sexual partner.
18. Most people would regard me as okay, even if I did not perform well sexually.
19. My partner does not set very high goals for herself (himself) as a sexual partner.
20. My partner seldom pressures me to be a perfect sexual partner.
21. I do not expect perfectionism from my sexual partner.
22. I do not have to be the best sexual partner in the world.
23. In general, people would readily accept me even if I were not the greatest sex partner in the world.
24. My partner never aims at being perfect as a sexual partner.
25. My sexual partner does not have very high goals for me as a sexual partner.
26. In general, people would readily accept me even if I were not a great sex partner.
27. I do not have very high goals for myself as a sexual partner.
28. Most people don’t expect me to be perfectionistic when it comes to sex.
29. My partner does not feel that she/he has to be the best sexual partner.
30. My partner appreciates me even if I am not a perfect sexual lover. (*response consistency filler item*)
31. Most people don’t expect me to be perfectionistic when it comes to sex. (*response consistency filler item*)

Sexual Risk Behavior Beliefs and Self-Efficacy Scales

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The Sexual Risk Behavior Beliefs and Self-Efficacy (SRBBS) scales were developed to measure important psychosocial variables affecting sexual risk-taking and protective behavior. It was originally a component of a larger questionnaire used in evaluating the effectiveness of a multicomponent, school-based program to prevent Human Immunodeficiency Virus (HIV), sexually transmitted disease (STD), and pregnancy among high school students (Coyle et al., 1996). The variables measured by the SRBBS scales are attitudes, norms, self-efficacy, and barriers to condom use. These variables were derived from the Theory of Reasoned Action (Fishbein & Ajzen, 1975), Bandura’s Social Learning Theory (1986), and the Health Belief Model (Rosenstock, 1974).

Description
The instrument development process for the SRBBS scales involved four stages: (a) identifying the psychosocial constructs relevant to risk behavior for HIV, STD, and pregnancy; (b) generating questionnaire items by a team of investigators, based on the theories and models described above, empirical research, and other instruments that measured these constructs; (c) pretesting the draft instrument with focus groups of high school students; and (d) revising the instrument and testing it with additional focus groups.

The scales consist of 22 items with a 3- or 4-point Likert-type response format. Three of the scales address sexual risk-taking behavior: attitudes about sexual intercourse (ASI), norms about sexual intercourse (NSI), and self-efficacy in refusing sex (SER). Five scales address protective behavior: attitudes about condom use (ACU), norms about condom use (NCU), self-efficacy in communication about condoms (SECM), self-efficacy in using and buying condoms (SECU), and barriers to condom use (BCU). These scales have been used with students of various ethnic groups and have been translated into Spanish. In our

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research, we have used the SRBBS scales with high school students (aged 14 to 18). They have also been used with middle school students (grades 7 and 8) in another study; however, data from this research are not yet available.

**Response Mode and Timing**

The SRBBS scales have been used as part of a larger 110-item self-administered questionnaire that takes approximately 30–45 minutes to complete. The scales were originally printed on a form that can be optically scanned. In that form, respondents marked the circle corresponding to their response (the form did not include a numeric value for the responses). The scales can be adapted so that respondents circle or mark the appropriate response on a form that cannot be optically scanned.

**Scoring**

The items that belong in each scale are identified in the Exhibit, along with values for the responses. Two items (ASI2 and NSI2) should be scored in reverse. Scores on individual items in a scale are totaled and then divided by the number of items in the scale. This gives the scale scores the same range as the response values, enabling the user to compare the scale scores to the original response categories with ease. The range of the ASI, ACU, NSI, NCU, and BCU is 1 to 4, and the range of the SER, SECM, and SECU is 1 to 3.

**Reliability and Validity**

An analysis of data from a multiethnic sample of 6,213 high school students from Texas and California provides all information on reliability and validity (Basen-Engquist et al., 1996).

*Reliability.* In a sample of 6,213 high school students from Texas and California (Basen-Engquist et al., 1996), the Cronbach alpha measuring internal consistency reliability for each of the scales was as follows: attitudes about sexual intercourse, .78; norms about sexual intercourse, .78; self-efficacy for refusing sex, .70; attitudes about condom use, .87; norms about condom use, .84; self-efficacy in communicating about condoms, .66; self-efficacy in buying and using condoms, .61; and barriers to condom use, .73.

*Construct validity.* Confirmatory factor analysis was used to assess construct validity. Two models were evaluated, one with items relating to sexual risk-taking behavior, the other with items relating to protective behavior. The sexual risk behavior model included three scales: ASI, NSI, and SER. In the development of the model, we discovered that correlated error terms were required between norm and attitude items that were grammatically similar in order to obtain a model that fit the data. The fit indices indicated that the final data fit the model well (that is, the χ² was not significant, the residuals were normally distributed, and root mean square error of approximation was < .05).

The final protective behavior model included five scales: CU, NCU, SECM, SECU, and BCU. The fit indices indicated a good fit for this model as well, once paths for correlated error terms between grammatically similar attitude and norm items were added.

*Concurrent validity.* Concurrent validity was assessed by examining specific relationships between the scales and sexual experience in the high school sample. The sexual risk behavior scales differentiated between sexually experienced and those who have never had sexual intercourse. The results indicated that attitudes and perceived norms of students who had never had sexual intercourse were less supportive of having sexual intercourse than were those of sexually experienced respondents (Effect size ASI = 1.09; Effect size NSI = .90 [Effect size = | Mean₁ – Mean₂ | / Pooled standard deviation]). In addition, students who were sexually experienced had lower self-efficacy for refusing sex than did students who were not (Effect size SER = .57). Similar findings were observed in comparisons of students who had sexual intercourse in the last 3 months with those who did not.

We also examined students’ condom use and their related attitudes and norms. Protective behavior scales differentiated sexually active students who were consistent condom users from those who were not. Consistent condom users had more positive attitudes toward condom use and more favorable perceived norms about condom use than inconsistent users (Effect size ACU = .78; Effect size NCU = .56). Self-efficacy for using and buying condoms and communicating about condom use with partners also were higher for the consistent condom users (Effect size SECM = .47; Effect size SECU = .23; Effect size BCU = .20). In addition, the consistent users found carrying or buying condoms to be less of a barrier than did the inconsistent users.

Concurrent validity also was assessed by hypothesizing specific relationships between the scales and age and gender, and then testing these hypotheses in the high school sample. We hypothesized that girls would have higher scores on norms about sexual intercourse, attitudes about sexual intercourse, self-efficacy for refusing sexual intercourse, attitudes about condom use, norms about condom use, and self-efficacy in communicating about condoms, but lower scores on condom use self-efficacy. These hypotheses were confirmed. We also hypothesized that age would be positively related to all three self-efficacy scales and negatively related to norms and attitudes. These hypotheses were also confirmed, with one exception. Younger students reported higher self-efficacy in refusing sex than older students (Basen-Engquist et al., 1996).

**Other Information**

This work was conducted under Contract #200–91–0938 with the Centers for Disease Control and Prevention.
References


Exhibit

Student Health Questionnaire

Your beliefs

Please fill in the answer for each question that best describes how you feel.

ASI1. I believe people my age should wait until they are older before they have sex.

ASI2. I believe it’s OK for people my age to have sex with a steady boyfriend or girlfriend.

ACU1. I believe condoms (rubbers) should always be used if a person my age has sex.

ACU2. I believe condoms (rubbers) should always be used if a person my age has sex, even if the girl uses birth control pills.

ACU3. I believe condoms (rubbers) should always be used if a person my age has sex, even if the two people know each other very well.

What do your friends believe?

The following questions ask you about your FRIENDS and what they think. Even if you’re not sure, mark the answer that you think best describes what they think.

NSI1. Most of my friends believe people my age should wait until they are older before they have sex.

NSI2. Most of my friends believe it’s OK for people my age to have sex with a steady boyfriend or girlfriend.

NCU1. Most of my friends believe condoms (rubbers) should always be used if a person my age has sex.

NCU2. Most of my friends believe condoms (rubbers) should always be used if a person my age has sex, even if the girl uses birth control pills.

NCU3. Most of my friends believe condoms (rubbers) should always be used if a person my age has sex, even if the two people know each other very well.

How sure are you?

What if the following things happened to you? Imagine that these situations were to happen to you. Then tell us how sure you are that you could do what is described.

SER1. Imagine that you met someone at a party. He or she wants to have sex with you. Even though you are very attracted to each other, you’re not ready to have sex. How sure are you that you could keep from having sex?

SER2. Imagine that you and your boyfriend or girlfriend have been going together, but you have not had sex. He or she really wants to have sex. Still, you don’t feel ready. How sure are you that you could keep from having sex until you feel ready?

SER3. Imagine that you and your boyfriend or girlfriend decide to have sex, but he or she will not use a condom (rubber). You do not want to have sex without a condom (rubber). How sure are you that you could keep from having sex, until your partner agrees it is OK to use a condom (rubber)?

SECM1. Imagine that you and your boyfriend or girlfriend have been having sex but have not used condoms (rubbers). You really want to start using condoms (rubbers). How sure are you that you could tell your partner you want to start using condoms (rubbers)?

SECM2. Imagine that you are having sex with someone you just met. You feel it is important to use condoms (rubbers). How sure are you that you could tell that person that you want to use condoms (rubbers)?

SECM3. Imagine that you or your partner use birth control pills to prevent pregnancy. You want to use condoms (rubbers) to keep from getting STD or HIV. How sure are you that you could convince your partner that you also need to use condoms (rubbers)?

SECU1. How sure are you that you could use a condom (rubber) correctly or explain to your partner how to use a condom (rubber) correctly?

SECU2. If you wanted to get a condom (rubber), how sure are you that you could go to the store and buy one?

SECU3. If you decided to have sex, how sure are you that you could have a condom (rubber) with you when you needed it?
What do you think about condoms?

Please tell us how much you agree or disagree with the following statements.

**BCU1.** It would be embarrassing to buy condoms (rubbers) in a store.

**BCU2.** I would feel uncomfortable carrying condoms (rubbers) with me.

**BCU3.** It would be wrong to carry a condom (rubber) with me because it would mean that I’m planning to have sex.

*Key to identification of scale items and description of response formats:*

<table>
<thead>
<tr>
<th>ASI</th>
<th>Attitudes about sexual intercourse</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACU</td>
<td>Attitudes about condom use</td>
</tr>
<tr>
<td>NSI</td>
<td>Norms about sexual intercourse</td>
</tr>
<tr>
<td>NCU</td>
<td>Norms about condom use</td>
</tr>
</tbody>
</table>

**Response format for attitude and norm items:**

- 4 = Definitely Yes
- 3 = Probably Yes
- 2 = Probably No
- 1 = Definitely No

<table>
<thead>
<tr>
<th>SER</th>
<th>Self-efficacy for refusing sexual intercourse</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECM</td>
<td>Self-efficacy for communicating about condom use</td>
</tr>
<tr>
<td>SECU</td>
<td>Self-efficacy for buying and using condoms</td>
</tr>
</tbody>
</table>

**Response format for self-efficacy items:**

- 1 = Not Sure at All
- 2 = Kind of Sure
- 3 = Totally Sure

<table>
<thead>
<tr>
<th>BCU</th>
<th>Barriers to condom use</th>
</tr>
</thead>
</table>

**Response format for barrier items:**

- 4 = I Strongly Agree
- 3 = I Kind of Agree
- 2 = I Kind of Disagree
- 1 = I Strongly Disagree

*Item should be scored in reverse.*

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**Health Protective Sexual Communication Scale**

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The Health Protective Sexual Communication Scale (HPSC) is a self-report scale that assesses how often respondents discuss health protective topics while interacting with a new, first-time sexual partner. Items address health protective concerns related to safer sex, sexual histories, and contraceptive use. Moreover, the scale assesses communication that has health protective consequences as distinct from sexual communication that may be related to enhancement of sexual pleasure. The expanded 10-item scale was based on an extension of two brief scales that have been used in two national survey studies to assess the ability to discuss sexual histories and condom use with prospective sexual partners. Findings indicate both the brief and expanded HPSC scales to be strongly linked to high-risk sexual behaviors that include multiple partners, condom use, and alcohol use before sex (Catania, 1995; Catania, Coates, & Kegeles, 1994; Dolcini, Coates, Catania, Kegeles, & Hauck, 1995).²

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²Portions of the NABS survey data collected from the NABS cohort study used to report indexes of reliability and validity are available on request from the author.