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Health Protective Sexual Communication Scale

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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:*

- **ASI** = Attitudes about sexual intercourse
- **ACU** = Attitudes about condom use
- **NSI** = Norms about sexual intercourse
- **NCU** = Norms about condom use
- **SER** = Self-efficacy for refusing sexual intercourse
- **SECM** = Self-efficacy for communicating about condom use
- **SECU** = Self-efficacy for buying and using condoms

<table>
<thead>
<tr>
<th>Response format for attitude and norm items:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 = Definitely Yes</td>
</tr>
<tr>
<td>3 = Probably Yes</td>
</tr>
<tr>
<td>2 = Probably No</td>
</tr>
<tr>
<td>1 = Definitely No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Response format for self-efficacy items:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Not Sure at All</td>
</tr>
<tr>
<td>2 = Kind of Sure</td>
</tr>
<tr>
<td>3 = Totally Sure</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Response format for barrier items:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 = I Strongly Agree</td>
</tr>
<tr>
<td>3 = I Kind of Agree</td>
</tr>
<tr>
<td>2 = I Kind of Disagree</td>
</tr>
<tr>
<td>1 = I Strongly Disagree</td>
</tr>
</tbody>
</table>

*Item should be scored in reverse.*

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**Health Protective Sexual Communication Scale**

**JOSEPH A. CATANIA,**

*University of California, San Francisco*

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.
Description

The original self- or interviewer-administered scale is composed of three items rated on a 3-point scale (1, happened with all partners; 2, happened with some partners; 3, didn’t happen). The revised, expanded scale is a 10-item Likert-type rating scale with two questions that need to be excluded when administering the scale to gay individuals. Each item is rated on a 4-point scale (4 = always, 1 = never).

Response Mode and Timing

The scales are available in Spanish and English. Both the short and the expanded forms are self- or interviewer-administered and take approximately 1–2 minutes to complete.

Scoring

Total scores on the brief three-item HPSC scale are produced by reverse scoring and summing across items for a total scale score. Total scores on the expanded HPSC scale are obtained by summing across items.

Reliability and Validity

The HPSC scale has been administered to varied populations, including adolescents and national urban probability samples constructed to adequately represent White, Black, and Hispanic ethnic groups, as well as high HIV-risk groups (Catania et al., 1994; Catania, Kegeles, & Coates, 1990; Dolcini et al., 1995). The original brief version of the HPSC scale was used on a population of 114 adolescent females who participated in a study (Catania et al., 1990) that examined psychosocial correlates of condom use and multiple partner sex. Respondents, recruited from a family planning clinic in California, were White (92%), Hispanic (4%), and other (4%) and ranged in age from 12 to 18 years. The majority of respondents were heterosexual, unmarried, and sexually active. Reliability was good (Cronbach’s alpha = .67). A hierarchical multiple regression model, in which several predictor variables known to be related to sexual risk were examined, revealed that a greater willingness to request partners to use condoms as indicated by HPSC scores was associated with more frequent condom use and multiple partners (Catania et al., 1990).

The original three-item Health Communication Sexual Scale was also administered to respondents who participated in a study (Catania et al., 1994) examining the incidence of multiple partners and related psychosocial correlates, as part of the AIDS in Multi-Ethnic Neighborhoods (AMEN) study (Catania, Coates, Kegeles, et al., 1992). The AMEN study is a longitudinal study (three waves) examining the distribution of HIV, sexually transmitted diseases (STDs), related risk behaviors, and their correlates across social strata. The multiple partner study sample, which used data generated from Wave 2, restricted inclusion criteria to unmarried heterosexuals who revealed an HIV-related risk marker at Wave 2, and being sexually active between Wave 1 and 2. Respondents ranged from 20–44 years of age. Reliability was excellent (Cronbach’s alpha = .84). The mean, standard deviation, median, range, and reliability of ethnic groups, gender, and levels of education are provided in Table 1.

### TABLE 1
Normative Data for the Health Protective Sexual Communication Scale

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
<th>Mdn</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Sample</td>
<td>155</td>
<td>23.82</td>
<td>8.21</td>
<td>30.0</td>
<td>24.0</td>
<td>.88</td>
</tr>
<tr>
<td>High-risk Cities</td>
<td>810</td>
<td>22.93</td>
<td>7.32</td>
<td>30.0</td>
<td>22.0</td>
<td>.84</td>
</tr>
<tr>
<td>White</td>
<td>101</td>
<td>23.06</td>
<td>8.19</td>
<td>30.0</td>
<td>22.3</td>
<td>.88</td>
</tr>
<tr>
<td>Black</td>
<td>342</td>
<td>22.53</td>
<td>7.02</td>
<td>30.0</td>
<td>21.9</td>
<td>.83</td>
</tr>
<tr>
<td>Hispanic</td>
<td>47</td>
<td>25.62</td>
<td>8.13</td>
<td>29.0</td>
<td>28.0</td>
<td>.87</td>
</tr>
<tr>
<td>Male</td>
<td>329</td>
<td>24.35</td>
<td>7.33</td>
<td>30.0</td>
<td>24.0</td>
<td>.83</td>
</tr>
<tr>
<td>Female</td>
<td>8</td>
<td>23.01</td>
<td>3.30</td>
<td>15.0</td>
<td>24.0</td>
<td>.60</td>
</tr>
<tr>
<td>Male</td>
<td>125</td>
<td>21.90</td>
<td>8.12</td>
<td>30.0</td>
<td>21.0</td>
<td>.87</td>
</tr>
<tr>
<td>Female</td>
<td>8</td>
<td>23.01</td>
<td>3.30</td>
<td>15.0</td>
<td>24.0</td>
<td>.60</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 12 years</td>
<td>14</td>
<td>22.24</td>
<td>6.01</td>
<td>17.0</td>
<td>24.0</td>
<td>.76</td>
</tr>
<tr>
<td>Male</td>
<td>97</td>
<td>24.78</td>
<td>7.89</td>
<td>30.0</td>
<td>24.0</td>
<td>.55</td>
</tr>
<tr>
<td>Female</td>
<td>414</td>
<td>21.22</td>
<td>6.72</td>
<td>29.0</td>
<td>20.0</td>
<td>.64</td>
</tr>
</tbody>
</table>

For further details on sampling methods for the AMEN cohort study, see Catania, Coates, Kegeles, et al. (1992).
In earlier analysis with the HPSC scale, we examined whether its relationship to condom use was continuous across all scale values (Catania, Coates, Kegeles, et al., 1992). The scale was found to have a significant relationship to condom use primarily for those respondents scoring in the upper one third of the scale, indicating that people who consistently communicate about sexual matters across sexual encounters and partners are significantly more likely to use condoms. Thus, the HPSC scale was scored by dichotomizing the measure so that high scores included the upper one third of scores and low scores were composed of the lower two thirds of scores. Findings from the AMEN study revealed that high levels of health protective sexual communication were significantly correlated with high levels of condom use.

In another AMEN cohort analysis, the original HPSC scale was examined in relationship to incidence of multiple partners (Dolcini et al., 1995). Reliability was fair (Cronbach’s alpha = .50) for respondents who also reported two or more sex partners in the past year. A regression model for all respondents with a primary sexual partner revealed that those who also had a new sexual partner in the past year (n = 201), and low heath protective communication (odds ratio = 1.3 per unit decrease in health protective communication, 95% confidence interval = 1.05, 1.5), were associated with having multiple partners.

We conducted further analyses on the expanded Health Communication Scale Measure used in the 1990–1991 National AIDS Behavior Survey (NABS) longitudinal study (Wave 2), which was composed of three interlaced samples designed to oversample African Americans and Hispanics for adequate representation. The interlaced samples included a national sample, an urban sample of 23 cities with high prevalences of AIDS cases, and a special Hispanic urban sample. In our analyses of the expanded HPSC scale, we limited our sample to respondents who reported having at least one partner in the past 12 months, were heterosexual (defined as respondents who only had opposite gender sexual partners in the past 5 years), aged 18–49, and completed the HSPC scale. Respondents who described themselves as Asians, Native Americans, and Pacific Islanders were excluded because they were not adequately represented for analysis purposes (n = 24).

Because the intent of our analyses was to examine relationships between variables, sample segments were combined without the use of poststratification weights. The resulting increase in power allowed for the detection of even very small relationships. Internal reliability was excellent (Cronbach’s alpha = .85). Means, standard deviations, range, median, and reliability are given for White, Black, and Hispanic ethnic groups; males and females; and levels of education (Table 1).

A factor analysis of the expanded HPSC scale obtained a single large eigenvalue (4.3), with an additional value falling near one (1.15), suggesting that there may be an additional factor, but it is not a strong element in the expanded scale. The second factor that may exist consists of items asking specifically about condom use. Given the small amount of variance accounted for by the second (6%) versus the first factor (37%), we opted for a single-factor scale. We recommend further work that would expand the number of condom items in the scale to examine additional factors.

We examined an array of psychosocial and experiential factors that previous models and studies have indicated are important determinants of sexual communication and negotiation. From a multiple regression in which we analyzed primary antecedents, background, and demographic variables, we found respondents with higher HPSC expanded scale scores to be more likely to have greater sexual and condom relations skills, to be sexually assertive, to have ever used a condom, to be committed to using condoms in the future, to have been tested for HIV, and to be 18 to 29 years old (Catania, 1995). Respondents with high HPSC scores were also less likely to feel susceptible to STDs and less likely to report having used alcohol before sex.

We also examined a number of hypothesized gender and race interactions. An inverse relationship between sexual guilt and HPSC among Hispanic women was revealed. In contrast, Hispanic men who scored higher on sexual guilt also scored higher in HPSC. Higher communicators were also somewhat more likely to be Black than Hispanic and were almost three times more likely to be women than men.

References

*For further details on sample construction and weighting of the NABS cohort study, see Catania, Coates, Stall, et al. (1992).
Exhibit

Health Protective Sexual Communication Scale

Instructions: Now I am going to read a list of things that people talk about before they have sex with each other for the first time. How often in the past 12 mos. have you . . . (read each). Would you say always, almost always, sometimes, or never?

1 = Never  2 = Sometimes  3 = Almost always  4 = Always  6 = Don’t know  7 = Declined to answer

1. Asked a new sex partner how (he/she) felt about using condoms before you had intercourse.
2. Asked a new sex partner about the number of past sex partners (he/she) had.
3. Told a new sex partner about the number of sex partners you have had.
4. Told a new sex partner that you won’t have sex unless a condom is used.
5. Discussed with a new sex partner the need for both of you to get tested for the AIDS virus before having sex.
6. Talked with a new sex partner about not having sex until you have known each other longer.
7. Asked a new sex partner if (he/she) has ever had some type of VD, like herpes, clap, syphilis, gonorrhea.
8. Asked a new sex partner if (he/she) ever shot drugs like heroin, cocaine, or speed.
9. Talked about whether you or a new sex partner ever had homosexual experiences.
10. Talked to a new sex partner about birth control before having sex for the first time.

Note. Items 1, 2, and 4 were used in the original short version. Items 9 and 10 are excluded for gay men and lesbians.

Safe Sex Behavior Questionnaire

COLLEEN DIIORIO, Emory University

The Safe Sex Behavior Questionnaire (SSBQ) was designed to measure frequency of use of recommended practices that reduce one’s risk of exposure to, and transmission of, HIV.

Description

An information pamphlet sent in May and June of 1988 to all U.S. households by the Surgeon General’s office, Understanding AIDS, was used as a guide to select items that reflect safe-sex practices (DiIorio, Parsons, Lehr, Adame, & Carlone, 1992). All references to safe-sex practices within the pamphlet were identified and classified into one of the following categories: (a) protection during intercourse, (b) avoidance of risky behaviors, (c) avoidance of bodily fluids, and (d) interpersonal skills. Based on these statements, 27 items were written and selected for review by content experts. Experts were asked to evaluate each item for meaning, clarity, and correspondence to the definition of safe-sex behaviors, which were defined as “sexually-related practices, which avoid or reduce the risk of exposure to HIV and the transmission of HIV.” Based on their reviews, all 27 items were retained for the final version, with some minor changes in wording. Following factor analysis, three items were deleted from the scale.

Response Mode and Timing

Each of the 24 SSBQ items is rated on a 4-point scale from 1 (Never) to 4 (Always). The SSBQ takes about 5 to 10 minutes to complete. The items do not usually require explanation.

Scoring

Of the 24 SSBQ items, 15 are worded positively and 9 negatively. The 15 positively worded items are 1, 3, 4, 5, 6, 8, 9, 10, 11, 12, 16, 17, 18, 19, 21. The original items 6, 7, and 16 were deleted from the scale because of the results of factor analysis.

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