

Survey Questionnaires in Screening for High-Risk Sexual Behavior

RECOMMENDATION

Among asymptomatic apparently healthy adolescents and adults, we suggest screening for high-risk sexual behavior (*conditional recommendation, low certainty evidence*).

Considerations

The consensus panel considered the following when formulating this recommendation:

- Most agree that high-risk sexual behavior is a priority mainly because of the rising cases of HIV.
- All agree that screening has benefits that outweigh the harmful effects (i.e., stigma) provided that health workers that will be involved are well-trained in handling those who will be identified.
- The CP perceived the screening to be inexpensive. However, professional fees and the battery of tests might incur high costs.
- All agree that screening for high-risk sexual behavior using suggested tools is equitable, acceptable, and feasible.
- Issues of privacy and confidentiality, labeling, stigma, and acceptance of the result were raised.

Remarks

This recommendation reached consensus. However, there was an abstention from the panel due to the concerns about privacy and legal issues on screening minors.

3.5.1 Burden of disease

High-risk sexual behavior is not a disease but rather a risk factor for developing many diseases and conditions. Examples of high-risk sexual behavior include 1) unprotected intercourse without male or female condom use, except in a long-term, single-partner (monogamous) relationship, 2) unprotected mouth-to-genital contact, except in a long-term monogamous relationship, 3) early sexual activity, especially before age 18, 4) having multiple sex partners, 5) having a high-risk partner (one who has multiple sex partners or other risk factors), 6) having anal sex or a partner who does, except in a long-term, single-partner (monogamous) relationship, 7) having sex with a partner who injects or has ever injected drugs, and 8) exchange of sex (sex work) for drugs or money.(1)

Disease Frequency

A national survey showed that “only one in ten sexually active Filipinos consistently uses contraceptives to avoid contracting sexually transmitted diseases (STDs) or prevent pregnancy.(2) The 2nd PhilCare Wellness Index showed that only 13.2 % said they always

used protection during sex to avoid getting STDs such as HIV. Only 12.8% admitted that they consistently used contraceptives (i.e., condoms or oral contraceptive pills) to prevent unwanted pregnancies.(3)

Among young adults (aged 18-30 years of age), only two out of ten always used protection (same as previous). (3)

Severity of Disease

The Philippines, along with Bangladesh, Pakistan, and Afghanistan, are challenged by rapidly expanding HIV epidemics. Among these, the Philippines demonstrates “the steepest rise,” with new infections increasing by 200% from 2010 to 2018.(4)

Approximately 160,000 people died due to an AIDS-related illness in the region in the year 2019. Some countries experienced increases in AIDS-related deaths, including Afghanistan, Bangladesh, Indonesia, Pakistan, and the Philippines. (4)

Economic impact of the disease

Unsafe sex is the second leading cause of disability-adjusted life years (DALYs) worldwide. Hence, valid and reliable tools to assess risky sexual behaviors are necessary for implementing preventive measures. (5)

Sexually transmitted infections (STIs) constitute colossal health and economic burden for developing countries: 75–85% of the estimated 340 million annual new cases of curable STIs occur in these countries, and STIs account for 17% of economic losses because of ill health. (6)

Social impact of the disease

Healthcare providers may deliberately minimize contact with patients with HIV, reduce care for them, delay or deny treatment, or isolate these patients from others. (7)

Stigma from the diseases caused by HRSB (such as HIV, STIs), sex work, substance use, and gender and sexuality issues bring about social, economic, and legal stigma - resulting in poor health services, poor access and uptake, harassment, and abuse, discrimination and violence, poverty, and poor social or emotional wellbeing. The resulting marginalization becomes a take-off point of a vicious cycle that eventually results in poor health and sickness. (7, 8)

3.5.2 Benefits and Harms of Screening Tests

A study has shown that screening for sexual risk behavior resulted in a statistically significant increase in screening for gonorrhea, chlamydia, and syphilis.(9) The prompt diagnosis allows for treating not only the patient but also the sexual partner.(10) Gonorrhea, chlamydia, and syphilis are easily managed with the appropriate antibiotics. Early treatment of gonorrhea and chlamydia prevents complications like epididymitis that rarely may cause infertility.(11) If left untreated, gonorrhea can result in disseminated gonococcal infection, manifested as arthritis, tenosynovitis, and/or dermatitis.(12) The condition may be life-threatening. In syphilis, some patients left untreated are at risk of developing tertiary

syphilis; at this stage, the heart, blood vessels, the brain, and nervous system are affected, eventually leading to death.(12)

When high-risk sexual behaviors are screened, individuals who can benefit from voluntary counseling and testing (VCT) can be identified. Henderson and the research team in 2020 published a systematic review and meta-analysis (an update of the evidence for the USPSTF) on behavioral counseling interventions to prevent sexually transmitted infections.(13) Twenty-one out of 39 studies reported the effectiveness of behavioral counseling in preventing STI. Nineteen studies showed that behavioral intervention was significantly associated with a lower incidence of STI (overall pooled OR 0.66, 95% CI 0.54-0.81; $I^2 = 74\%$; $n = 52,072$; strength of evidence moderate).(13) In terms of reducing risky behaviors and increasing protective ones, pooled results showed a lower number of episodes of unprotected intercourse (pooled mean difference, -0.94 (95%CI -1.40 to -0.48 ; $I^2 = 16\%$) in those who received behavioral counseling. The result was from the meta-analysis of 14 out of 21 studies that reported a measure of unprotected intercourse, and this was statistically significant. Similarly, the pooled analysis from 13 reviews (out of 18 that said condom use) “suggested that the intervention was associated with a higher odds of condom use (OR 1.31, 95% CI 1.10-1.56; $I^2 = 40\%$).” The strength of evidence for the outcome of protective behaviors was low. Appendix A shows the Summary of Findings from the Henderson systematic review and meta-analysis.

There was limited reporting of behavioral counseling's possible harm from seven studies investigating this (strength of evidence insufficient). (13)

One possible limitation of screening for HRSB is the social desirability bias that comes with answering a self-reported sexual risk assessment.(14) Responses may be adjusted not to create the impression of being careless concerning sex to avoid the stigma of reckless or hypersexual behavior. This stigma in itself, and the resultant marginalization, represents one of the possible harms of such screening, especially when done in settings where privacy is not keenly observed. (8)

3.5.3 Diagnostic Performance of Screening Tests

A systematic review found assessment tools for risky sexual behavior that can be carried out using questionnaires or non-questionnaire instruments.(5) For this review, only the questionnaire types are discussed.

The reviewer performed a free search for articles reporting these diagnostic accuracy measures for the screening tools listed in the Mirzaei study, but none were found. Psychometric properties and the factors they assessed were reported, as shown in the review.

The review also found two questionnaires used in large-population settings: the National Survey of Sexual Attitudes and Lifestyle (NATSAL) from the United Kingdom (UK) and the Youth Risk Behavior Surveillance Survey (YRBSS) from the United States (US). These surveys

can provide a prevalence estimate of risky sexual behaviors in the geographical locations of use. These questionnaires were found to have good reliability and validity. (15)

As to small population questionnaires, the systematic review identified nine tools identified and described in Table 15.

Table 15. Small population questionnaires: a characteristic and psychometric evaluation.(5)

Name of Tool	No. of Items	Factors Assessed	Psychometric properties
Sexual Risk Survey	23	Total of 5: sexual risk-taking with uncommitted partners, risky sex acts, impulsive sexual behaviors, intent to engage in risky sexual behaviors, and risky anal sex acts	0.88 Test-retest reliability: 0.93
Safe Sex Behavior Questionnaire (SSBQ)	27	Total of 4: protection during intercourse, avoidance of risky behaviors, avoidance of bodily fluids, and interpersonal skills	Total: 0.82 Alpha for factors between 0.52 to 0.85 Content validity index : 0.98
Sexual Health Practices Self-Efficacy Scale	20	Total of 6: Sexual relationships, sexual health care, sexual assault, safer sex, sexual equality/diversity, abstinence	Alpha of factors respectively are : 0.82, 0.81, 0.78, 0.71, 0.73
Sexual Risk Behavior Beliefs and Self Efficacy Scales (SRBBS)	26	Total of 8 Three factors for sexual risk behavior: norms about sexual intercourse, attitudes about sexual intercourse, Self-efficacy in refusing sex Five factors for protective behaviors: Norms about condom use, attitudes about condom use, self-efficacy in communication, self-efficacy in using condoms, barriers to condom use	Alpha of factors respectively are 0.78, 0.78, 0.70, 0.84, 0.87, 0.66, 0.61, 0.73
Condom use errors / Problem survey (CUES)	16	Assessments of most common problem and errors in condom use in the last three experiences	Not reported
Correct Condom Use Self Efficacy Scale (CCUSS) 7 item Alpha: 0.70	7	Questionnaire about errors and problems that might occur before, during, and after sex	Alpha 0.7
UCLA Multidimensional Condom Attitudes Scale (MCAS)	25	Total of 5: Reliability and effectiveness of condoms, pleasure associated with condoms, stigma associated with condoms, embarrassment about negotiation and use of condoms, embarrassment about purchasing condoms	Alpha between 0.71 to 0.94 for subfactors (reported separately for each sex)
Hypersexual Behavior Inventory (HBI)	19	Total of 3: Control, coping, and consequences	Total alpha: 0.90 Alpha of factors respectively are 0.78, 0.86 and 0.78.
Hypersexual Disorder Screening Inventory (HDSI)	7	Total of 2: Recurrent and intense sexual fantasies, urges and behaviors, distress and impairment as a result of these fantasies, urges, and behaviors	Alpha: 0.88

3.5.4 Cost Implication

A few studies from 2000 onwards looked into the cost-effectiveness of screening for high-risk sexual behavior (with or without concomitant intervention), primarily done in the US. These were through text messaging survey(16), sexual health survey during emergency department (ED) visits(17), text surveys with or without interaction(18), and baseline survey and school-based educational program, Safer Choices(19). Generally, these screening interventions were deemed cost-effective.

Table 16 shows an estimated annual screening cost per patient in the Philippines.

Table 16. Costing for Screening for High-risk Sexual Behavior thru Text Messaging (16)

Parameter	Screening intervention
	Text-based Survey on Sexual Risk Behaviors
(A) Unit cost of screening intervention	Text message survey once each week for five weeks. Assume a maximum of five tries per respondent before an answer is obtained. P 1.00 x five tries/week for five weeks = Php 25.00
(B) Other direct costs associated with the implementation of the proposed screening intervention ^a	Patient cost = an average of 10 minutes per screening of a physician/nurse/social worker Php 29,277 ^b = Php 30.50
(C) Annual screening cost per patient	Php 55.50

^a Cost of identifying the specific STD such as gonorrhea, chlamydia, syphilis, HIV, and treatment cost is not part of the computation. Direct and indirect costs of unwanted/unplanned pregnancy are not also included in this computation.

^b Based on the monthly income of a physician/nurse/social worker with a Salary grade 14

3.5.5 Ethical, Social, and Health Systems Impact (Equity, Acceptability, and Feasibility)

Ethical

An instrument that attempts to collect information on very detailed sexual history and activity puts its respondent at some degree of perceived compromise. Studies done by WHO in the Philippines and India, Indonesia, and Thailand revealed that up to 34% of respondents experienced “breaches of confidentiality” by the health providers attending to them. (20)

Adolescents and youths in disadvantaged communities, such as rural, mountainous, and other underdeveloped areas, are more likely to have higher sexual risks.(21) A properly chosen and widely-used instrument stands to benefit these populations. When screening leads to early diagnosis and treatment, the health inequity that plagues these marginalized groups may be lessened.

Social

The Philippines is a predominantly Catholic country, with an estimated 76 to 86% of the population actively practicing Catholicism.(22) Many behaviors are deemed unacceptable

and immoral, and the only sexual behavior thought to be morally appropriate is heterosexual intercourse within a monogamous marriage.(23)

Sexual risk surveys provide the prevalence of high-risk sexual behaviors. Still, since completing these calls for information about sexual debut, sexual partners, condom use, and other matters considered sensitive, participants may feel reluctant to provide truthful, complete, and accurate accounts of past behaviors because of the stigma associated with them.(24) A study that enrolled Vietnamese individuals aged 16-30 discussed that reporting sexual activities is sensitive. It was warned that the results might not accurately reflect attitudes and behaviors. (25)

Health Systems

The adoption or implementation of high-risk sexual behavior screening can ride on existing infrastructure and human resources. However, certain special concessions should be made to accommodate the sensitive nature of information being obtained. For instance, clinical record management should not allow disclosure of identity, nor shall identify information be shared, except for treatment or prevention of STIs.(26) Results of tests should not be viewable in a way that allows patient identification on a server. Thus, computer and information management teams should provide for these.

The patient's consent for disclosure must accompany referrals to other health providers. (26)

The environment for face-to-face data collection of sexual risk behaviors must be private and soundproof, precluding any overhearing or eavesdropping by either uninvolved health personnel or other patients.(26)

An appropriate way of calling in a patient would prohibit identification by others. Training of existing personnel will be necessary to assure that the survey process protects the patient's privacy, the confidentiality of data and that patients are spared from the experience of being judged or discriminated against.(26)

3.5.6 Recommendations from Other Groups

The 2013 update of the UK national guideline for consultations requiring sexual history-taking follows the 2006 version.(26) Though mainly intended for use in genitourinary medicine, it can also be applied in situations where assessments for STIs are made, including general practice. Encouraging high standards of sexual risk assessment for adults and adolescents alike targets the improvement of sexual health among these individuals. The guideline covers the following areas of inquiry and other concerns: the environment for sexual history-taking, communication skills, and thorough sexual history that delves into partners, behaviors, and practices, among many others.

Separately, the National Institute for Health and Care Excellence (NICE) in September 2016 published their first guideline on 'harmful sexual behavior among children and young

people,' to include ages 10–18.(27) It also includes individuals up to 25 years old who have special educational needs or a disability.

A search of the Canadian Task Force website on Preventive Health Care revealed upcoming screening guidelines for chlamydia and gonorrhea (2020/2021) but not for high-risk sexual behavior.(27)

The USPSTF has issued relevant recommendations on the following: screening for chlamydia and gonorrhea, screening for syphilis in nonpregnant persons and pregnant persons, screening for HIV, preexposure prophylaxis for HIV, and screening for intimate partner violence.(28)

The systematic review(13) is aligned with the recommendation on behavioral counseling for all sexually active adolescents and adults at increased risk of sexually transmitted infections. The USPSTF names in the STI screening document important information that must be captured to assess whether one is at risk or not. The factors that are listed as putting a person at risk include 1) being diagnosed with an STI in the past year, 2) inconsistent condom use, 3) having multiple sexual partners or a partner who is at high risk for STIs, and d) belonging to a population that has a high STI prevalence (individuals seeking STI testing or attending an STI clinic, sexual and gender minorities, PLHIV, injection drug use, commercial sex workers, etc.).(29)

The Centers for Disease Control (CDC), through its Division of Adolescent and School Health, “promotes environments where youth can gain fundamental health knowledge and skills, establish healthy behaviors, and connect to health services to prevent HIV, STDs, and unintended pregnancy.” (30) The YRBSS monitors six categories of health-related behaviors that contribute to the leading causes of death and disability among youth and adults (one of the sexual behaviors). The CDC conducts it along with state and local governments.

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