



Published in final edited form as:

J Pediatr Adolesc Gynecol. 2008 August ; 21(4): 187–193. doi:10.1016/j.jpag.2007.08.009.

YOUNG WOMEN'S PERSPECTIVE OF THE *PROS* AND *CONS* TO SEEKING SCREENING FOR CHLAMYDIA AND GONORRHEA: AN EXPLORATORY STUDY

Mariam R. Chacko, M.D.¹, Kirk von Sternberg, Ph.D.², Mary M. Velasquez, Ph.D.², Constance M. Wiemann, Ph.D.¹, Peggy B. Smith, Ph.D.¹, and Ralph DiClemente, Ph.D.³

¹Baylor College of Medicine and Texas Children's Hospital, Houston, TX

²University of Texas Health Science Center at Houston

³Rollins School of Public Health, Emory University, Atlanta, GA

Abstract

Study Objective—To identify young women's *pros* and *cons* (decisional balance) to seeking chlamydia (CT) and gonorrhea (NGC) screening.

Design—Prospective, cross sectional study

Setting—Community-based reproductive health clinic

Participants—192 young women (66% African American; mean age 18.9 years).

Main Outcome Measure(s)—Content analysis of responses obtained during a decisional balance exercise (*pros* and *cons*) promoting CT and NGC screening was conducted. Thematic categories were developed through a coding process, and each response was assigned to one thematic category. The frequency of *pros* and *cons* responses for each category and the frequency of participants endorsing each category were calculated.

Results—Ten thematic categories in relation to *pros* and *cons* of seeking CT and NGC screening were: being *healthy*; *awareness* of knowing the body; *systemic factors* around the clinic visit and testing procedures; benefits and aversions around *treatment*; *partner relationship* issues; *confidentiality*; *prevention* of long term adverse effects, *protection* of the body; *concern* for others; *fear* of results/*aversion* to testing; and logistical *barriers*. The three most often cited *pros* were *awareness*, *healthy* and *treatment issues*; and the three most often cited *cons* were logistical *barriers* (time/transportation), *fear/aversion* to testing, and *systemic issues*.

Conclusions—A variety of *pros* and *cons* to seeking CT and NGC screening were identified at a community-based clinic. Providers in clinical settings can utilize this information when encouraging patients to seek regular STI screening by elucidating and emphasizing those *pros* and *cons* that have the most influence on a young woman's decision-making to seek screening.

Corresponding Author: Mariam R. Chacko, M.D., Texas Children's Hospital, Clinical Care Center, 6621 Fannin Street, CC 1710.01, Houston, TX 77030, Office #: 832 822 3666, Fax#: 832 825 3689, Email Address: mchacko@bcm.edu.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

SYNOPSIS: This qualitative study determined ten thematic categories in relation to *pros* and *cons* of seeking CT and NGC screening among young women

Keywords

Chlamydia; STI screening; Chlamydia screening; Gonorrhea screening; Decisional Balance; Decisional Balance and STI screening; Transtheoretical model and STI screening

INTRODUCTION

Sexually transmitted infections (STI), such as chlamydia (CT) and gonorrhea (NGC) infections are a public health problem among young women in the United States.¹ Early detection and treatment of both asymptomatic and symptomatic cervical infections is an important strategy for reducing the duration of infection, the risk of transmission to other sex partners, and the incidence of adverse sequelae, such as pelvic inflammatory disease, tubal damage and infertility.²⁻⁸

The Center for Disease Control and Prevention (CDC) recommends that health care providers screen sexually active women less than 25 years of age for CT and NGC infection at least annually.³⁻⁵ While efforts to enhance health care-provider STI screening practices should continue, it may also be important to promote client-initiated STI screening practices.⁸ This approach requires an understanding how young women decide (personal decision-making) to seek STI screening.

Decisional balance has been an integral part of the Transtheoretical Model (TTM), and is an important construct in understanding the process of intentional change of problem behaviors and adoption of healthy behaviors.^{9,10} In moving toward any decision, individuals weigh the costs and benefits of the action being contemplated. In behavioral change, these considerations are known as *decisional balancing*, a process of cognitively appraising or evaluating the "good" aspects or *pros* and the "less good" aspects or *cons* of a behavior and the reasons to change and not to change that behavior. Research on self-change of substance abuse behavior has demonstrated that individuals who have successfully modified their behaviors have engaged in this type of cognitive appraisal process before initiating behavior change.¹¹⁻¹³ Behavior change occurs as the *pros* increase and the *cons* decrease to the point of crossing over.

Making a decision to adopt a behavior such as STI screening may involve a similar appraisal process of weighing factors for (*pros*) and against (*cons*) STI screening. Studies assessing *pros* and *cons* to STI screening are limited.¹⁴ In a cross sectional study, in adolescent and young adult women at a hospital-based clinic, Banikarim et. al. conducted 240 brief individual assessments to assess *pros* and *cons* to seek STI screening with a main and change in partner across the stages of change (a construct of the TTM). While a crossover of the *pros* and *cons* for seeking screening occurred, a significant decrease in the *cons* across the stages of change was observed. These young women ranked the *pro* item, "I would not have to worry about having a STD" highest in importance for screening, and ranked the *con* items, "It takes a lot of time" and "Clinic workers may tell my business to others" highest in importance against screening.¹⁴ This study supported the importance of understanding *pros* and *cons* to seeking screening when counseling young women at a hospital-based clinic.

Three qualitative studies involving adolescent and adult's perspective on the benefits and barriers to seeking STI testing in non-clinical settings (Job Corp, juvenile detention center plus juveniles released into the community and a college campus) were reviewed.¹⁵⁻¹⁷ Two studies involved focus group discussions,^{15,16} and one involved an in-depth semi structured interview that incorporated a scenario concerning a hypothetical friend.¹⁷ In Blake et al's study, prominent reasons given to get tested at the Job Corp included: making sure that one was not infected; finding out if one were infected so that one could get treated; protecting one's body,

partner, or infant; and responding to symptoms, a condom breaking, or suspicions about one's partner.¹⁵ In Tilson et al's study, participants at a juvenile detention center and released juveniles in the community reported benefits to seeking screening and were receptive to the idea of routine annual screening for asymptomatic STDs.¹⁶ In both these studies, participants had strong negative emotional responses to urethral swabs and pelvic examinations including discomfort and embarrassment, lack of privacy, fear of finding out that one has an STD, denial and embarrassment, and a feeling of shame about being witnessed visiting the health department STD clinic.^{15,16} Some barriers were unique to each study setting. For example, participants from the Job Corp setting expressed fear of surreptitious drug testing¹⁵ and participants in the juvenile detention center and community setting expressed concerns over out-of-pocket costs, fear of a bill for STD services being sent to parents, lengthy waits, scarcity of Spanish interpreters and negative provider attitudes.¹⁶ Few, if any, participants from the college campus population perceived STIs as a serious medical problem.¹⁷ Social stigma (e.g., "STIs are not nice things. They are disgusting"), negative consequences of testing (e.g., "what others would think," "embarrassment" and "fear of positive test results,"), gender of the clinician, lack of knowledge regarding STIs as compared to HIV/AIDS, and comfort with the physician were expressed as main barriers to STI test-seeking in this setting.¹⁷

While these studies provide valuable information, they do not examine decision-making about STI screening from the perspective of young women attending a community-based reproductive health clinic. Thus, the purpose of this study was to identify the *pros* and *cons* of seeking CT and NGC screening from young women who participated in an intervention to promote STI screening at a community-based reproductive health care clinic. While a focus group shifts the emphasis from the individual and uses the dynamic of the collective discussion to gain insight into a topic,¹⁸ potentially unique information may be learned during individual in-depth counseling sessions in which women offer their own perspectives for improving their STI screening behavior.

MATERIAL AND METHODS

Study sample and procedures

This study is part of a larger randomized controlled clinical trial in which motivational interviewing (MI) is used to facilitate client-initiated STI screening over a 12-month period in young women at-risk for CT and NGC. Data collected for 192 participants who participated in the intervention plus standard-of-care were used in the analyses presented in this study. Young women (n=376) attending an urban community reproductive health clinic were randomly assigned at baseline to one of two groups: an intervention group or the standard-of-care only group. Eligible participants for the larger investigation included English-speaking, single females aged 16 to 22.5 years seeking reproductive health care services between May 2002 and February 2004. Subjects were excluded if they were currently pregnant or trying to conceive, suffering from an obvious mental illness or under the influence of alcohol or illicit drugs at the time of recruitment, HIV+ by self-report, or unable to understand the consent form and what was expected of participation. All eligible participants voluntarily consented to participate in a 12-month intervention study, agreed to complete standardized questionnaires every 6 months, and provide urine specimens to screen for NGC and CT infection at the baseline, 6- and 12-month visits.

Participants in both groups received standard clinical care consisting of individual HIV/STI risk-reduction counseling for at-risk young women, provided by clinic staff. Those assigned to the intervention group also received a 30–50 minute session of MI counseling with a trained health counselor. Intervention group participants were instructed to return to the clinic in two weeks for another 30–45 minute MI session with the health counselor. Participants were given \$20 after completing their baseline assessment and \$10 for completion of the 2-week

counseling session. Human subject review boards at Baylor College of Medicine and the University of Texas Health Sciences Center Houston approved all study protocols.

MI is a directive, patient-centered intervention style used to explore an individual's ambivalence (*pros* and *cons*) about behavior change, thereby promoting movement through the TTM stages of change.¹³ A counselor often uses a decisional balance "worksheet" as a means of helping clients explore and resolve ambivalence about change.^{11, 13} The goal of this approach is to create a safe and supportive rapport with participants in order to facilitate their thinking about their current behavior and whether/how they might change their behavior. The counselor reviews what is "good" (*pros*) as well as what is "not-so-good" (*cons*) about the behavior. This technique provides the counselor with an opportunity to explore the issues that may be sustaining a problem behavior or preventing an individual from adopting a health-promoting behavior.

During the first intervention session, the health counselor conducted the decisional balance exercise prior to administration of the intervention. The counselor then assisted the participant in completing the exercise by asking about the *not so good things* and the *good things* associated with getting screened for CT and NGC. A non-judgmental approach was used to guide participants through the process of assessing and writing their own list of *pros* and *cons*. These *pros* and *cons* were written as complete statements, key words, or phrases. At the 2-week session the health counselor revisited and discussed participants' *decisional balance* in the context of their sexual behavior and asked if there was anything they would like to add or change.

Data Analysis

Written responses provided by participants during the decisional balance exercise were taken in their entirety for analysis. All responses were entered verbatim first into Microsoft Word and then imported into QSR NUD*IST4, a computer software program specifically designed to facilitate the analysis of qualitative data (Sage Publications Software).

Content analysis was conducted to analyze the responses. The process used to form the thematic categories into which responses were placed was based on the "Grounded Theory" approach to qualitative data analysis.^{19,20} The initial formation of categories of responses began with *open coding*, a process that entails identifying and categorizing themes identified in the textual content. In this process, each response line or phrase is read to determine its general theme. The respondents' phrases were used to create as many categories as necessary to capture all possible themes being introduced; each response line or phrase was the unit of analysis. The categories were exhaustive, 26 in number, and mutually exclusive: each phrase was limited to membership in only one category.

The second stage in the process was *axial coding*. This coding involves relating the open codes (categories and properties) to each other using a combination of inductive and deductive reasoning. A panel of five investigators reviewed the open coding categories. Whereas the task in the open coding process was to create as many categories as necessary to capture all possible themes contained in the response phrases, the task for axial coding was to identify relations between each of these categories and synthesize them into the minimum number of *primary* thematic categories sufficient to fit the thematic concept of decision-making. For example, four categories -"fear," "treatment effects," "fear of the testing procedure" and "dealing with bad results," were synthesized into the primary category "Fear/Aversion."

Once the *primary* thematic categories were determined by consensus of the investigator panel, an independent research assistant coded the raw data (each of the participant's phrases) into one of these newly determined primary categories. Results of this independent coding were

then compared to the initial coding. Agreement for *pros* between 1st and 2nd independent coding procedures was 91.3% and agreement for the *cons* was 93.8%. The next step of the coding process involved the reconciliation of discrepant categorizations. In this step, two investigators reviewed each of the discrepancies and agreed on the final categorization.

To provide a sense of the relative importance of each thematic category, participant responses were further analyzed in two ways. First, all participants' responses, including multiple endorsements of the same category, were allowed, thereby, providing an overall frequency of the total number of responses given for each category. Second, the total number of study participants endorsing each category was calculated.

RESULTS

Participant demographic information and sexual and contraceptive behavior are provided in Table 1. A total of 192 participants completed the first intervention session, with approximately 75% of participants returning to complete the second intervention session 2- weeks later. A total of 689 *pros* responses and 371 *cons* responses were made. Twenty responses were incomplete or inappropriate and could not be assigned to a category. When the responses made by the same subject were removed, the *pros* were reduced to 569 responses and the *cons* were reduced to 295 responses. Overall, 98.4% (187) of participants had at least one *pros* statement and 84.9% (163) made at least one *cons* statement about STI screening.

Final Coding Categories and Descriptors

The coding process ultimately produced ten categories, which are described in Table 2. Each of the *pros* and *cons* phrases was placed exclusively (one category per phrase) into one of these ten categories. As seen in Table 3 and Table 4, four thematic categories were shared by both *pros* and *cons*, four categories were exclusively *pros*, and two were exclusively *cons*. The four thematic categories that included both *pros* and *cons* were: *systemic*, *treatment*, *partner trust*, and *confidentiality*.

Pros to Seeking CT and NGC Screening

Eight categories were identified as *pros*. There were no *pro* responses that related to *fear/aversion* and *barriers* to seeking screening. Examples of *pros* to screening by category include:

Awareness—"Comfort of knowing that I am healthy," "Being able to know my risk," "Finding out early if I have a STI," "Not worrying," "Knowing - peace of mind that I don't have one," "Makes me feel better about myself";

Healthy—"Staying healthy and living a long life," "Being responsible";

Treatment—"I can get treated," "I can treat STI before it gets worse," "Know what's wrong and get treated on time," "If I get treated right away I can help prevent long term effects and have more time to treat the disease";

Effect on others—"To protect my partner," "So I won't harm anyone else," "Not to harm an unborn child," "Not having to worry about hurting my children," "Protect my child if I am pregnant";

Prevention/protection—"Knowing about better prevention," "Help prevent STI's in the future," "To stop long term effects and so I can have babies";

Systemic—“To be able to get all service in one place,” “Free services” or “Good help,” “Talk to someone if I have a problem”;

Partner trust—“Help put trust in a relationship,” “Know that my partner does not have a STD,” “Knowing if I have an STD so I can let my partner know if everything is OK”; and

Confidentiality—“Confidential,” “Only me and my health provider will know.”

As seen in Table 3 and Table 4, the top three categories for *Pros*, based both on frequency of responses and frequency of participants were: *awareness*, *healthy* and *treatment*. These were followed by: *effect on others*, *prevention/protection*, *systemic*, *partner trust* and *confidentiality*.

Cons to Seeking CT and NGC Screening

Eight categories were identified as *Cons*. There were no *con* responses that related to *prevention/protection* and *effect on others*. Examples of *cons* to screening by category include:

Barriers—“Finding the time,” “No money to go to the clinic,” “Not knowing if I have a way to the clinic,” “School schedule,” “Work schedule”;

Fear and aversion—“Not wanting to know the results,” “Being scared of my results,” “being nervous waiting for my results,” “Finding out I have an incurable STD”;

Systemic—“Taking blood,” “Someone examining me,” “Time,” referring to the wait at the office,” “Children running around the lobby,” “The exam process,” “Don’t get results the same day”;

Treatment—“Having to take medicine,” “Side effects of medicine”;

Confidentiality—“People knowing,” “People knowing my business or personal life,” “people knowing who I am,” “Worry about the clinic telling people,” “Parents finding out that I am being screened”; and

Partner trust—“Partner thinking I was with other people;” “False accusations with partner,” “Having to tell my partner,” “Embarrassment,” “If I have a STD I would feel lied to.”

As seen in Table 3 and Table 4, the top three categories for the *cons*, based both on frequency of responses and frequency of participants were *barriers to testing*, *fear and aversion of testing*, and *systemic* issues. These were followed by *treatment*, *confidentiality*, and *partner trust issues*. Of note, almost 24% of young women indicated *systemic* factors around the clinic visit or the testing procedure would hinder seeking screening.

DISCUSSION

This study provides insight into themes representing factors that may influence a young woman’s decision to seek CT and NGC screening at a community-based clinic. Two important benefits to seeking STI testing were noted: systemic- and treatment-related themes represented by free and confidential, diagnostic and onsite treatment services in one location. The setting and services of a community-based reproductive health clinic make it an ideal site to promote ongoing STI screening for young women.

Findings from this study also validate results of previously published studies investigating attitudes toward seeking STI screening. Specifically, prior research has identified the themes

of being healthy, awareness of knowing what is going on with one's body, receiving peace of mind, receiving treatment, concerns for the partner, protecting others including one's child, and partner benefiting from seeking testing.¹⁵⁻¹⁷ Themes in Barth et al's study that applied to categories in our study included: Perceived Benefits of Testing, Perceived Negative Consequences of Testing, Perceived Vulnerability, Personal Characteristics and Testing/Setting Characteristics.¹⁷ Categories in Barth et al's study that did not emerge in our study were: Low Perceived Severity of STIs vs. HIV, Social Norms (stigma e.g. "STIs are not nice things. They are disgusting"), Public Knowledge and Opinion (low media attention to STIs and lack of knowledge of STI knowledge), and Provider Characteristics (gender, provider knowledge and comfort with physician, probably due to their application of a health service utilization model).¹⁷ The absence of Provider Characteristics as a *con* to screening in our study may be explained by the predominance of female clinic staff and our belief that this community-based clinic is perceived as a comfortable, safe environment.

In our study, partner trust issues were important to both *pros* and *cons* of seeking STI screening. While themes such as partner characteristics (possible history of past and current sexual behavior) and concern for the partner were noted by Barth et al, the potential impact of seeking STI screening on the nuances of a partner relationship has not been alluded to in other studies.¹⁷ Interestingly, while young women in our study saw testing as a way to build trust in a relationship, especially if the test result was negative, they saw a positive test result adversely impacting their personal perception of their partner and the partner's perception of them. Thus, for these young women, partner trust was a complex but relevant issue in the decision to seek screening.

STI treatment issues in our study were also important to both *pros* (receiving STI treatment) and *cons* (taking medications and medication side effects) of seeking STI screening. Participants in the Job Corp study also saw STI treatment as a benefit to seeking screening.¹⁵ Thus, this aspect should be emphasized as a *pro* to seeking screening especially in many public health clinics that provide onsite STI treatment.

In contrast to our study, confidentiality issues were considered to be important to young women at the Job Corp¹⁵ and the college campus.¹⁷ Adolescents and young adults in some of these settings are frequently familiar with one another, a situation that can interfere with privacy and foster stigma. While not an overriding concern with respect to seeking screening in our study, some participants did indicate they were worried about the clinic violating their confidentiality. Patients in overcrowded and small clinical settings, regardless of geographical location, may overhear staff conversations and perceive lack of privacy and become concerned about the fostering of stigma.¹⁴ Thus, confidentiality as a barrier to seeking STI screening cannot be ignored in clinics that promise confidential care. Efforts to maintain confidential services must be respected in such settings.

Young women were potentially misinformed about the role of STI screening as indicated by the perceived preventive role suggested by the statement that STI screening can "Help prevent STIs in the future." While early testing and treatment will decrease the risk of adverse sequelae such as PID and infertility, seeking STI screening will not modify a young woman's risk factors or decrease the need for future screening if they maintain high risk behaviors. This emphasizes the importance of health care providers and educators clarifying primary and secondary approaches to STI prevention for young women.

Systems-related barriers involving clinic efficiency, accessibility, and waiting for test results can be difficult to address. Almost 24% of young women indicated that systemic factors around the clinic visit, such as time or the testing procedure, would hinder seeking screening. Fortunately, recent advances in microbiologic techniques for the detection of CT and NGC

that use urine specimens may decrease the waiting time for results. This suggests that strategies such as “fast-tracking” asymptomatic young women when they only seek STI screening and obtaining urine specimens for CT and NGC testing may increase participation in subsequent screening visits.

In clinical settings offering urine testing, clinicians can allow clients to have control of the specimen collection process (self-collection), thus minimizing the need for more invasive procedures. While none of the participants in our study expressed a fear of being drug tested, programs need to be aware of young women’s potential fear of being tested for drugs when submitting a urine specimen, as noted in the Job Corp study.¹⁵ Overall, it appears prudent for clinic systems to pursue urine STI testing in asymptomatic young women, especially since affordable NAAT tests are increasingly available and CT screening is promoted by state-funded infertility prevention programs.

The study has limitations. Since the participants were in the clinic and seeking free reproductive health services they were less likely to cite barriers such as clinic access issues. Therefore, the results may not be transferable to other clinics and non-clinical settings. Due to participants’ enrollment in a research project, the information may not represent young women who refused to participate in the study. Also since participants were enrolled in an intervention study, they may have altered their responses to present themselves in a more positive light, thus generating more *pros* than *cons*. Finally, Grounded Theory,^{19,20} was used to synthesize the responses into the minimum number of *primary* categories sufficient to fit the thematic concept of decision-making. Limiting the coding to 10 thematic categories may have over simplified a number of complex issues that could have provided further insight into decision-making in young women.

In conclusion, seeking CT and NGC screening by young women with high-risk sexual behavior is an important strategy to minimize duration of infection and, as a consequence, reduce the spread of infection in their sexual network.^{4, 5} Overall, this study provides both clinicians and public health providers with valuable information to help design strategies to address young women’s perceived *pros* and *cons* in order to enhance CT and NGC screening. Clinic-based educational strategies and campaigns through one-on-one clinical sessions and through group discussions, posters, fact sheets and public health announcements, can emphasize the positive aspects of seeking screening (i.e., the *pros*: being healthy, aware, receiving treatment, gaining partner trust, and prevention/protection). They can also dispel fears about medications and drawing blood for tests by educating young women about the indications for a blood test in the context of STI screening. Similarly, a young woman may be reassured if she can know in advance ways to think about and address a positive STI test result.

Acknowledgements

The authors acknowledge the Baylor Teen Health clinic staff for their support of the study, Sheryl A. McCurdy Ph.D. for serving as a scientific adviser for the qualitative analysis and Claudia Kozinetz Ph.D and Joseph Carbonari Ph.D as scientific advisers for the quantitative data analysis. The project was funded by grant number 1R01AI47341 to MRC from the National Institutes of Allergy and Infectious Diseases.

References

1. Centers for Disease Control and Prevention Trends in Reportable Sexually Transmitted Disease Surveillance in the United States 2005. National Surveillance Data for Chlamydia, and Syphilis. <http://www.cdc.gov/STD/stats>
2. Osher S, Persson K, Liedholm P. Tubal Infertility and Silent Salpingitis. *Hum Reprod* 1989;4:280–284. [PubMed: 2715302]

3. Centers for Disease Control and Prevention: Pelvic Inflammatory Disease: Guidelines for prevention and Management. MMWR 1991;40(No RR-05):1.
4. Centers for Disease Control and Prevention: Recommendations for the Prevention and Management of *Chlamydia trachomatis* infections. MMWR 1993;42(No RR-12):1.
5. Centers for Disease Control and Prevention. Sexually Transmitted Diseases Treatment Guidelines 2006. MMWR 2006;55(No RR11)
6. Pavletic AJ, Wolner-Hanssen P, Paavonen J, et al. Infertility following pelvic inflammatory disease. Infect Dis Obstet Gynecol 1999;7:145–152. [PubMed: 10371473]
7. Westrom, L.; Eschenbach, D. Pelvic Inflammatory Disease. In: Holmes, KK.; Starling, PF.; Mardh, P-A., et al., editors. In Sexually Transmitted Diseases. 3rd ed.. New York: McGraw Hill Health Professions Division; 1999. p. 783-809.
8. Chacko MR, Wiemann CM, Smith PB. Mini Review- Chlamydia and gonorrhea screening in asymptomatic young women. J Pediatr Adolesc Gynecol 2004;17:169–178. [PubMed: 15125902]
9. Prochaska, JO.; DiClemente, CC. Toward a comprehensive model of change. In: Miller, W.; Heather, N., editors. Treating Addictive Behaviors. New York, NY: Plenum Press; 1986.
10. Prochaska JO, Velicer WF, Rossi JS, et al. Stages of Change and decisional balance measures for twelve problem behaviors. Health Psychol 1994;3:207–215.
11. Miller, WR.; Rollnick, S. Motivational interviewing. New York: Guilford Press; 1991.
12. LaBrie JW, Pederson ER, Earlywine M, Olsen H. Reducing heavy drinking in college males with the decisional balance: Analyzing an element of Motivational Interviewing. Addictive Behaviors 2006;31:254–263. [PubMed: 15970393]
13. Sobell LC, Cunningham JA, Sobell MB, Aggrawal S, Gavin DR, Leo GI, Singh KN. Fostering self-change among problem drinkers: A proactive community intervention. Addictive Behaviors 1996;21:817–833. [PubMed: 8904946]
14. Banikarim CL, Chacko MR, Wiemann CM, Smith PB. Gonorrhea and chlamydia screening among young women: Stages of change, decisional balance and self-efficacy. J Adolesc 2003;32:288–295.
15. Blake DR, Kearney MH, Oakes SK, Druker SK, Bibace R. Improving participation in Chlamydia screening programs: perspectives of high-risk youth. Arch Pediatr Adolesc Med 2003;157:523–529. [PubMed: 12796231]
16. Tilson EC, Sanchez V, Ford CL, et al. Barriers to asymptomatic screening and other STD services for adolescents and young adults: focus group discussions. BMC Public Health 2004;4:21. [PubMed: 15189565]
17. Barth KR, Cook RL, Downs S, Switzer GE, Fischhoff B. Social Stigma and negative consequences: factors that influence college students' decision to seek testing for sexually transmitted infections. J Am Coll Health 2002;50:153–159. [PubMed: 11910948]
18. Glaser, BG.; Strauss, AL. The discovery of grounded theory: Strategies for qualitative research. Chicago: Aldine; 1967.
19. Strauss, AL.; Corbin, J. Grounded theory methodology: An overview. In: Denzin, NK.; Lincoln, YS., editors. Handbook of Qualitative Research. Thousand Oaks, California: Sage Publications; 1994.
20. Chacko MR, Wiemann CM, Kozinetz CA, et al. New sexual partners and readiness to seek screening for chlamydia and gonorrhoea: predictors among minority young women. Sex Transm Infect 2006;82:75–79. [PubMed: 16461612]

Table 1

Demographic Characteristics, and Sexual and Contraceptive Behavior of 192 Young Women

Variable	N = 192
Age (years)	
Range	16 – 21
Mean ± SD	18.6 ± 1.4
Race/ethnic distribution	
African American	131 (68%)
Hispanic	31 (16%)
Non-Hispanic White	23 (12%)
Other	7 (4%)
Age-appropriate education level*	
	133 (69%)
Lifetime sexual partners	
Range	1 – 300
Mean	7.4 ± 24.2
Median	4.0
Ever had a STI	
	100 (52%)
STI past 12 months	
	52 (27%)
Reasons for the clinic visit	
Annual well woman exam/Pap smear	80 (42%)
Oral contraceptive pills	63 (33%)
Depo-Provera shot	34 (18%)
STI check/vaginal discharge/odor	33 (18%)
Pregnancy test	12 (6%)
STI medication	7 (4%)
Contraception used in past 30 days	
Condoms	97 (51%)
Oral contraceptive pills	39 (20%)
Depo-Provera	47 (24%)
Withdrawal	26 (14%)

* Age appropriate education =10th grade by 16 years, 11th grade by 17 years, 12th grade or GED by any age

Table 2

Pros and Cons of seeking Chlamydia and Gonorrhea Screening by Young Women: Thematic Categories and Descriptors of Responses

Thematic Category	Descriptors
Healthy	Health as being an important result of testing. Both physical health and emotional health are included in this domain. Also, includes reference to testing providing a sense of wellbeing and a feeling of being a responsible person.
Awareness	Being aware of the benefit of knowing or finding out what is going on with the body. Reference to gaining a peace of mind from the testing.
Systemic	Systemic factors around the clinic visit or the testing procedure that facilitate or hinder getting tested
Treatment	The treatment of an STD as a benefit of the screening process. Issues of urgency and avoidance of long-term effects are included. Also includes references to <i>Not so good things</i> such as an aversion to the actual treatment process.
Confidentiality	Confidentiality and the ability or lack thereof of being able to keep the testing private – no one else knowing
Prevention / Protection	Testing providing protection for one's body and long-term health. Issues around the prevention of long-term effects and future pregnancy are referenced. Also references to the benefit of education about the infections (the transmission, protection of one's body) are included.
Effect on Others	Dimensions of altruism, concern for others (individuals, partner, family, potential children, as well as a more global societal concern), and worry about transmission .
Fear / Aversion	A fear of the results and an aversion to the testing procedures.
Barriers	All types of barriers or logistical impediments to getting tested including the time required and difficulties around transportation .

Table 3

Frequency of Responses by Young Women on *Pros and Cons* of Seeking Chlamydia and Gonorrhea by Thematic Category

Thematic Category	% of Responses in Category ¹	Pros% Responses in Category	Cons% Responses in Category
Healthy	23.6	23.6	0.0
Awareness	32.7	32.7	0.0
Systemic	18.6	4.9	13.7
Treatment	23.1	16.6	6.5
Partner Trust	5.4	3.2	2.2
Confidentiality	6.1	0.7	5.4
Prevention / Protection	8.0	8.0	0.0
Effect on Others	10.3	10.3	0.0
Fear / Aversion	28.3	0.0	28.3
Barriers	43.9	0.0	43.9

¹ For example 23.6% of all responses given were relative to being *Healthy*

Table 4

Frequency of Participants Endorsing Thematic Categories by *Pros* and *Cons* of Seeking Chlamydia and Gonorrhea Screening

Thematic Category	% of Participants Endorsing Categories ¹	<i>Pros</i> : % of Participants Endorsing Category	<i>Cons</i> : % of Participants Endorsing Category
Healthy	72.8	72.8	0.0
Awareness	87.0	87.0	0.0
Systemic	36.9	13.0	23.9
Treatment	67.9	56.0	11.9
Partner Trust	18.5	12.0	6.5
Confidentiality	13.0	3.2	9.8
Prevention / Protection	31.0	31.0	0.0
Effect on Others	33.7	33.7	0.0
Fear / Aversion	47.3	0.0	47.3
Barriers	56.5	0.0	56.5

¹ For example 72.8% of participants gave responses related to being *Healthy*