



Negative Pregnancy Tests in Urban Adolescents: An Important and Often Missed Opportunity for Clinicians

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This study describes a project to determine the incidence of negative pregnancy tests performed in an urban community for teens 18-years old and younger. Pregnancy test logs were kept at a variety of clinical agencies for a three-month period. Five hundred and fifty urine pregnancy tests were performed; 77% were negative. In our community a large number of teens are accessing health care services for pregnancy tests, the vast majority of which are negative and represent an important opportunity to prevent unintended pregnancies in a population of adolescent girls.

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on pages 96-97.

Each year in the United States as many as 900,000 teens become pregnant (Centers for Disease Control and Prevention, 2000) and the majority report that the pregnancy was unintended (Hacker, Amare, Strunk, & Horst, 2000; Henshaw, 1998). Teens with negative pregnancy tests (NPT) have been identified as a population at risk for future pregnancy and sexually transmitted infections (STIs) because they are self-admittedly engaging in unprotected sexual activity.

Zabin, Sedivy, and Emerson (1994) studied teens, 17-years old and younger, who presented at a family planning or pediatric clinic and requested a pregnancy test. Fifty-six percent of those teens with a negative test had a subsequent pregnancy within 18 months. In a later study, Zabin, Emerson, Ringers and Sedivy (1996) studied 2,926 teens, 17-years old and younger from various health care sites, and found that 62.4% had a NPT. Thirty-five percent of the teens in this study with a positive test reported a previous negative test.

Teens who express ambivalence regarding pregnancy have been found to have similar pregnancy outcomes as those who express a desire for pregnancy (Cowley, Farley, & Beamis, 2002; Jaccard, Dodge, & Dittus, 2003; Steven-Simon, Kelly, & Singer, 1996). Crosby and colleagues (2002) found that ambivalent teens are also at increased risk for STIs because of inconsistent condom use. Several studies have explored the role an adolescent girl's partner has on her ideas about pregnancy. Cowley and col-

leagues (2002) studied 40 adolescent girls who were identified as being high-risk for pregnancy and found 70% of these girls reported that their partner desired a pregnancy. In a cross-sectional study of adolescents, Cowley and Farley (2001) found the boyfriend's desire for a pregnancy was the only significant predictor of the teen girl's view regarding pregnancy. Ambivalence, was also identified as being prevalent in 20.4% of a sample of low-income adolescents girls (n=64; mean age 16.9 ± 1.3 years) with negative pregnancy tests (Drebitko et al., in press). The same study found that, 48 % of the girl's with NPT felt their partners would be disappointed or ambivalent with the negative result of the pregnancy test.

We acknowledged that clinicians in our community could target this population of adolescent girls to prevent future pregnancies and STIs. An effort to determine the incidence of negative pregnancy tests (NPTs) in New Haven adolescents would help define the size of the population to be targeted. Thus, we conducted a study to examine the scope of the problem in teens, 18-years old and younger, in our community.

Recruitment and Planning

The project began with a recruitment meeting called by the research team to explain the project to all the community agencies providing primary care and reproductive health care services to adolescents in the various neighborhoods of New Haven. Community participants included representatives from both hospitals in the community, the two community health centers, the three high school-based and five middle school-based clinics, the two family planning clinics, a private pediatric practice, and the health department. Every agency agreed to participate. The Human Investigations Committee of Yale University School of Medicine and the individual institutional review boards of the participating agencies approved the study.

Table 1. Pregnancy Test Results Performed at Community Agencies

Site	n	Negative Tests (%)	95% CI**
Hospital Clinics	218	182 (83%)	77%-87%
Community Health Clinics	185	145 (78%)	72%-83%
Family Planning Clinics	62	27 (44%)	32%-57%
High School SBCs*	74	59 (80%)	68%-88%
Middle School SBC*	10	9 (90%)	60%-98%
Private Pediatric Practice	1	1 (100%)	—
Total Tests Performed	550	423 (77%)	73%-80%

* SBCs = school-based clinics

** CI=confidence interval

The research team developed a data collection instrument (pregnancy test log) and distributed it to an identified representative from each agency. The agency representative was responsible for sending the pregnancy test log with instructions to the appropriate department(s) at each agency (for example, at the community health centers, pregnancy test data were collected in the pediatric and OB/GYN departments).

Pregnancy Test Logs

Pregnancy test logs were kept at each participating agency for a three-month period (September-November). All pregnancy tests performed on 18 year-old and younger females were included. Eighteen years was chosen as the upper age limit because many young women at that age are still attending high school. Clinicians only recorded pregnancy tests performed for the following reasons:

1. The test was requested by the teen.
2. The clinician determined the need for the test during a gynecological visit.
3. The teen had an appointment for a non-gynecologic reason but during the visit the “hidden agenda” of the real concern about possible pregnancy was discovered.

Clinicians did not include pregnancy tests performed per protocol to document a negative test before the patient received a medication or procedure that was contraindicated during pregnancy.

At the conclusion of the data collection period, the agency representative collected and summarized the data from the logs. The summarized data were returned to the research team on a standard form and analyzed by the team.

Findings

During the study period, 550 urine pregnancy tests were documented in the participating sites (Table 1). Seventy-seven percent of the pregnancy tests were negative ($n=423$). The family planning clinics had the lowest percentage of negative test results (44%), and the middle school school-based clinics (SBCs) had the highest percentage of negative test results (90%), although only 10 tests were performed. The pediatric practice only performed one test and the result was negative.

Discussion

Although the difficulties of preventing adolescent pregnancies are well known, this study focused on examining the incidence of NPTs in teens 18-years old and younger at various health care settings in an urban community. The prevalence of NPTs in this study during a three-month period was 77%, which is somewhat higher than the rate of 62.4% in Zabin’s multi-site study (Zabin, Emerson, Ringers & Sedivy, 1996). Our overall results indicate that a substantial number of adolescent girls have NPTs and thus can be targeted by clinicians in an effort to prevent future pregnancies and STIs.

A negative pregnancy test most often elicits a sigh of relief for both the clinician and patient. However, the clinician needs to recognize the NPT as an admission of unprotected sexual activity by the adolescent and an indication of the need for appropriate reproductive counseling. The clinician first needs to determine the patient’s desire for pregnancy versus her willingness to consider birth control. For a teen who do not desire pregnancy or are ambivalent about pregnancy, contraceptive counseling, condoms, and a prescrip-

tion for a reliable and acceptable method of hormonal contraception should be provided to the patient at this visit (Sadler & Moriarty Daley, 2002). When working with a teen who indicates ambivalence about pregnancy, the clinician should engage the teen in a discussion about future goals, how a pregnancy may impact her future, and how her partner feels about the possibility of a pregnancy. The clinician should offer the teen a trial of contraception, while she remains unsure of her desire to have a baby, and assist the teen in taking a more active role in the decision. If a teen indicates a desire for pregnancy, she should be engaged in a conversation regarding the pros and cons of having a baby now and how parenthood may affect her future aspirations. The goal is to assist the teen to make an informed decision regarding a pregnancy and prepare adequately for a positive outcome (Sadler & Moriarty Daley, 2002). In addition to assisting the patient to decide about her desire for a pregnancy, the clinician needs to determine if STI screening, HIV counseling and testing, and a physical examination are indicated at this visit.

Experienced adolescent clinicians see NPTs as an opportunity to work with the teen at the time she may be most worried, and motivated to consider birth control. Clinical experience suggests that being able to address the risky sexual behavior and provide contraception at the same visit as the NPT result provides a “teachable moment” and a valuable opportunity to engage the teen in responsible and comprehensive reproductive health care.

Limitations

This study is limited by the relatively short three-month sampling of pregnancy test results that may not accurately account for variations that may occur over a longer period of time. In addition, only one private pediatric practice participated in the study.

Conclusion

In summary, in an urban community, we found that the vast majority of pregnancy tests performed by clinicians for adolescents were negative. These teens represent an important population to target for the prevention of future pregnancy and sexually transmitted infections. Subsequent phases of the project involved focus group sessions with clinicians (Moriarty Daley, Sadler, Leventhal, Cromwell & Reynolds, 2004) and interviews with teens to determine what services are currently available to teens at the time of a NPT (Drebitko et al. in press) and what gaps in care cur-

rently exist that may be modified to lower the incidence of unintentional pregnancy and sexually transmitted infections in this population of adolescents.

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