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Feasibility of Obtaining Sexual Risk and STD History in the Context of a Drinking Drivers' Program

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S Y N O P S I S

Objectives. This study was designed (a) to assess the feasibility of obtaining data about sexually transmitted diseases and sexual risk behavior in an alternative-to-incarceration program for convicted drinking drivers and (b) to determine whether asking health history and sexual risk questions using an anonymous questionnaire, anonymous interviews, or confidential interviews affected the willingness of people to participate.

Methods. The same survey instrument was used across three data collection modes to collect information on sexually transmitted diseases and sexual risk behavior.

Results. Overall, there were no differences across modes in self-reports of STDs and details of sexual history. Although the difference in refusal rates between the anonymous questionnaire and the anonymous interview was not significant, the refusal rate for the anonymous questionnaire was significantly higher than the rate for the confidential interview. Those answering the self-administered questionnaire were more likely than those receiving face-to-face interviews to refuse to answer questions about having sex while high and condom use.

Conclusions. A drinking driver intervention program may be an appropriate site for health screenings and prevention activities for an at-risk population.

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Given the importance of sexually transmitted diseases (STDs) as a public health problem, it is noteworthy that people are screened for STDs in relatively few settings. Outside of health department STD clinics and family planning centers, routine screening for these diseases is rare.^{1,2} It may be useful to address STDs and sexual risk in other settings in which one might expect to encounter people at increased risk of infection.

This article describes the assessment of sexual risk behaviors and self-reported prevalence of STDs among a group of "risk takers"—people attending a drinking driver intervention program.³⁻⁵ Such programs provide an alternative to incarceration for people convicted of Driving Under the Influence (DUI) and similar alcohol-related vehicular crimes. Offenders typically receive alcohol and other drug abuse education and counseling, participate in assessment and diagnostic activities designed to identify the presence of a drinking or drug problem, and receive referrals for any needed services. These programs may provide an opportunity to test for STDs and to educate offenders about a variety of other health problems.

The present study was carried out at the Weekend Intervention Program (WIP) in Dayton, Ohio, sponsored by the Wright State University School of Medicine. Dr. Siegal is the Director of WIP, which has been described elsewhere,^{3,5} and Ms. Cole is the Program Manager. In a 1984 study, more than half of program participants were assessed as either alcohol abusers or dependent on alcohol.^{3,5} Consuming alcohol can impair judgment and reduce inhibitions, thereby placing the drinker in situations in which the probability of exposure to violence and other risks to health and well-being—including STDs—is significantly increased.⁶⁻¹³ Additionally, DUI offenders, being primarily male, young, and single,¹⁴ tend to fit a demographic profile associated with increased STD risks.¹⁵

Self-reports of risk behaviors could reveal a group at increased risk of STDs, for whom prevention programs could be implemented. Self-reports, although potentially biased,^{16,17} may be a useful first step in determining whether a population is at increased risk; this could be followed by screening individuals among that population, thereby meeting both primary and secondary prevention goals.

This study had two goals: first, to determine the feasibility of gathering personal, highly sensitive data about STDs and sexual risk behaviors in settings such as driver

intervention programs; second, to determine whether the method by which health history and sexual risk questions are collected—an anonymous questionnaire, anonymous interviews, or confidential interviews—affected the willingness of people to participate.

METHODS

Sample. From the fall of 1995 through the spring of 1996, 734 people participated in WIP and were thus eligible to enroll in the study. WIP staff explained that the purpose of the study was to help researchers better understand sexual risk taking and sexually transmitted diseases (STDs) as a step toward preventing them.

In introducing the study to potential participants, staff emphasized that participation was entirely voluntary; no reports of involvement or refusal would be made to the referring courts, and no financial incentive was offered. Staff also described the difference between an "anonymous" and a "confidential" response—in the anonymous modes, respondents' identity would not be known to the researchers, while in the confidential mode, respondents' names would be recorded but no information about them would be released. Each person who agreed to a confidential interview also understood that his or her responses would be identified by a confidential code number and linked to demographic and clinical data in the WIP program's records for research papers.

We used three data collection modes: (a) an anonymous self-administered questionnaire; (b) face-to-face anonymous interviews; (c) face-to-face confidential interviews. These approaches were used sequentially.

WIP sessions are offered year-round. Each session meets over the course of one weekend, from Friday evening through Sunday evening. These residential programs include educational presentations and group and individual counseling. Anonymous questionnaires were distributed to participants in 10 successive sessions—on Saturday afternoon, which is the midpoint of the program—following a lecture on the health effects of alcohol consumption. WIP program staff collected the questionnaires approximately 20 minutes after distributing them; a blank questionnaire was considered a "refusal." Anonymous interviews were offered to participants in 10 successive sessions, and confidential interviews to participants in the next 8 successive sessions. After completing the brief program registration, each participant was greeted by an interviewer who explained the study and invited participation. If a participant

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declined, this was recorded as a “refusal.”

The sample thus consisted of: 250 respondents to the anonymous questionnaire (39 refusals; refusal rate = 39/289, or 13.4%); 176 respondents to anonymous interviews (22 refusals; refusal rate = 22/198, or 11.1%); and 236 respondents to confidential interviews (11 refusals; refusal rate = 11/247, or 4.4%).

Instrument. The same three-page instrument was used for all three modes. Each interview lasted approximately three minutes, while self-administered questionnaires took somewhat longer. In addition to demographics, the questionnaire gathered information on STDs, including: (a) whether respondents had ever been told by a doctor or nurse that they had an STD; (b) whether they had ever been told that they had a specific STD (gonorrhea, chlamydia, syphilis, herpes, trichomoniasis, genital warts, HIV, pelvic inflammatory disease, nongonococcal urethritis, and “others”); (c) whether they had been told within the preceding year that they had any of these STDs; (d) whether they had ever been treated for an STD and, if so, where.

Respondents were then asked about their sexual history in the preceding six months, a period of time that has been shown by Aral and colleagues provide a meaningful picture of a person’s sexual activities.¹⁸ Questions about sexual activity within the preceding six months included: (a) number of different partners; (b) number of new partners; (c) number of male partners; (d) number of female partners; (e) during how many of the last 10 episodes of intercourse condoms were used; (f) during how many of the last 10 sexual episodes the participant was high on alcohol or other drugs; and (g) during how many of the sexual episodes in which the participant was high were condoms used.

To assess the reliability of respondents’ responses to the data collection instrument, we readministered the confidential questionnaire to 45 respondents two days

after they initially completed the questionnaire and compared their responses to their earlier responses.

Data analysis. Variables were re-coded as dichotomous or ordinal measures. To assess test-retest reliability, we used the Kappa statistic for dichotomous variables and the weighted Kappa statistic for ordinal variables. We calculated chi-square tests and odds ratios to test for demographic differences across the three modes, refusal to participate across the three modes, refusal rates per question, and differences across modes in response rates to specific items. The alpha level for statistical significance was adjusted for the number of statistical tests using the Bonferroni method.

RESULTS

Reliability. Excellent test-retest reliability was obtained for the variables “married or living with sex partner” (kappa = 0.86); “ever had STD” (kappa = 1.00); none versus single versus multiple sex partners in the preceding six months, (kappa = 0.96); and never versus sometimes versus always using condoms (kappa = 0.94).

Differences across modes of administration. No demographic differences emerged across the three modes of administration. Respondents were 78% male and 90% white; 75% were 40 years of age or younger. Slightly fewer than half were married or living with a partner.

The differences in refusal rates between the self-administered and anonymous interview formats were not significant. Interestingly, the refusal rate for the confidential interviews was significantly lower than the refusal rate for the self-administered format ($P < 0.001$).

Overall, we found no differences across modes in self-reports of STDs and details of sexual history (see Table). Disaggregating by age and sex produced no dif-

ferences across modes. However, refusals to answer specific questions did differ by mode. Those answering the self-administered questionnaire were more likely than those receiving face-to-face interviews to refuse to answer two questions: having sex while high ($t = 7.13, P < 0.001$) and condom use ($t = 3.85, P < 0.001$).

DISCUSSION

This project had two distinct but interrelated goals. The first was methodological: operationalizing and testing ideas about the impact of the mode of administration on efforts to collect highly personal, sensitive data.¹⁶ The second was to examine the feasibility of using a large, criminal justice-oriented program as a setting for screening for STDs—and perhaps other public health concerns.

Catania and his colleagues have noted that people are likely to respond more completely and truthfully about sexual behavior if they feel that privacy and anonymity are being maintained and that questions are being asked for a serious, rather than voyeuristic or criminal, purpose.¹⁶ We found that refusal rates did not differ greatly between anonymous and confidential interviews, but self-administered, anonymous questionnaires produced a greater number of refusals and individual unanswered items than either type of interview. Initially we were somewhat surprised by the comparatively poor performance of the self-administered, anonymous questionnaire. We anticipated that this vehicle would provide the greatest measure of privacy and thus invite more and more complete responses; this proved not to be the case.

Our results support the observations of Catania et

Table. Self-reported STD and sexual history, participants in a drunken driver education course, Dayton, Ohio, fall 1995 and spring 1996 (N = 662)

| | Anonymous self-administered (N=250) | | Anonymous face-to-face (N=176) | | Confidential face-to-face (N=236) | |
|---|-------------------------------------|---------|--------------------------------|---------|-----------------------------------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| STD history | | | | | | |
| Ever had | 28 | 11.2 | 15 | 8.5 | 26 | 11.0 |
| Never had | 216 | 86.4 | 160 | 90.9 | 207 | 87.7 |
| Not answered | 6 | 2.4 | 1 | 0.6 | 3 | 1.3 |
| Multiple partners within previous six months | | | | | | |
| Yes | 77 | 30.8 | 37 | 21.0 | 60 | 25.4 |
| No | 173 | 69.2 | 139 | 79.0 | 176 | 74.6 |
| Not answered | 0 | 0 | 0 | 0 | 0 | 0 |
| New partners within previous six months | | | | | | |
| Yes | 92 | 36.8 | 52 | 29.5 | 65 | 27.5 |
| No | 158 | 63.2 | 124 | 70.5 | 171 | 72.5 |
| Not answered | 0 | 0 | 0 | 0 | 0 | 0 |
| Sex while high | | | | | | |
| Never | 89 | 35.6 | 89 | 50.6 | 102 | 43.2 |
| Sometimes | 105 | 42.0 | 79 | 44.9 | 124 | 52.5 |
| Always | 12 | 4.8 | 5 | 2.8 | 6 | 2.5 |
| Not answered | 44 | 17.6 | 3 | 1.7 | 4 | 1.7 |
| Use condoms | | | | | | |
| Never | 160 | 64.0 | 114 | 64.8 | 139 | 58.9 |
| Sometimes | 46 | 18.4 | 32 | 18.2 | 62 | 26.3 |
| Always | 31 | 12.4 | 27 | 15.3 | 35 | 14.8 |
| Not answered | 13 | 5.2 | 3 | 1.7 | 0 | 0 |

NOTE: Percentages may not add to 100.0 due to rounding errors.
STD = sexually transmitted disease

al.^{16,19} and others,²⁰ who suggest that cooperation can be enhanced by a sense of privacy, professionalism, and scientific integrity.

The number of "passive refusals"—blank questionnaires—using the self-administered mode may reflect literacy problems and the intimidation of a printed document. The face-to-face confidential interview appears to be the most productive mode of administration—at least as measured by the fewest number of refusals. Both compliance and the quality of data seem to be enhanced by the presence of an interviewer who can communicate interest and concern. We also speculate that giving one's name engenders greater commitment to the data collection process.

We found that a Drinking Driver Intervention Program could be an excellent site for a public health STD screening effort. From our preliminary data, the respondents would appear to be at higher risk of STDs than the general population given the extent of sexual risk behaviors such as having sex when inebriated; however, further testing is needed to identify individuals in need

of medical treatment, counseling, or other interventions. From the perspective of the program's clinical and operational needs, these brief, non-invasive screening activities were not intrusive. The majority of respondents were receptive to the project, and some stated that they felt as though it made the driver intervention program appear less punitive and more concerned with their overall health.

While the results of this study endorse the feasibility of using such nontraditional settings for screenings, we did not assess the veracity of self-reports. All data were provided by self-report; the validity of such data has been questioned in other settings.¹⁷ Nevertheless, the results are encouraging enough to support the value of introducing a minimally invasive biologic STD screening capability such as one using ligase chain reaction technology.^{21,22} Research linking analyses of sexual behaviors to other risk-taking behaviors can help us design effective health interventions for a very large, easily accessible, at-risk population.

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