Differences in Perceptions of What Constitutes Having "Had Sex" in a Population of People Living with HIV/AIDS

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The reduction of high-risk sexual behavior among HIV-infected individuals is a major aspect of prevention strategies to reduce HIV infection in the United States. These prevention efforts assume a common understanding between clinicians and HIV-infected individuals of the terms "sex" and what constitutes having "had sex."

The purpose of this study was to determine what sexual behaviors HIV-infected individuals perceive as having had sex and to examine the variability of these perceptions. Surveys were done of 279 HIV-positive adults receiving services at an HIV-focused community health center in Dallas, TX. Responses from participants about whether they perceived a given behavior as constituting having had sex were analyzed by Chi-squared analysis.

Overall, only 80.9% of respondents perceived penile-vaginal intercourse as "sex," while 76.9% said they "had sex" if someone had oral contact with their genitals. There were gender and ethnicity differences in what was perceived as having had sex. Females were significantly less likely than males to perceive anal intercourse as having had sex.

Variability exists among HIV-positive individuals regarding what they perceive as having had sex. Results support the need for clinicians to more precisely ascertain sexual perceptions and risks to achieve HIV prevention goals.

Key words: AIDS/HIV ■ sexual beliefs/behaviors

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INTRODUCTION

After nearly two hard-fought decades focused on minimizing the spread of HIV among various "at-risk" groups, such as men who have sex with men (MSM), youth and injection-drug users (IDUs), the period from 1999–2001 marked a disturbing increase in HIV infection among MSM and heterosexuals in the United States.[1] In 2003, the Centers for Disease Control and Prevention (CDC) announced a new strategy for attacking the HIV epidemic in the United States.[2] This initiative shifted the emphasis of HIV prevention efforts away from at-risk groups and toward those already infected, a practice more commonly known as "prevention among positives" or "secondary HIV prevention."

A key aspect of this strategy is the provision of guidelines to help clinicians incorporate HIV prevention into the medical care of their HIV-positive patients.[3] The CDC's guidelines identify the need for clinicians to screen HIV-infected patients for behavioral risk factors associated with the transmission of HIV and other sexually transmitted diseases (STDs). Important behaviors to address in risk screening include: whether the patient has been engaging in sex, number and HIV serostatus of sex partners, types of sexual activity, and condom usage.

However, before clinicians begin asking such questions as, "Have you been sexually active?," "Are you using condoms?" or even "Tell me about your sex life," there needs to be a firm understanding of the range of behaviors considered by their clients to be sex. If screenings for sexual behaviors are to be successful from the standpoint of secondary HIV prevention, then clinician–patient consensus regarding what is sex must be present. Clinicians must first understand what individuals' consider to be sex and the degree to which perceptions of sex or what constitutes having had sex might vary.

Researchers have explored the question of what constitutes sex or having had sex in a variety of con-

texts. Insight into perceptions of sex have also been made by attempts to define what is not sex, or abstinence.[4,5] Demographically, research in this area tends to focus on the sexual perceptions of teens and young college-aged adults.[6-13] One such study on this issue was conducted by Sanders and Reinisch on a sample of college students from a large Midwestern university.[13] Their random sample of 599 students matched the university demographics and was >90% white, 59% female, with 96% self-identifying as heterosexual. Sanders and Reinisch found that individual attitudes varied with regard to behaviors defined as "sex;" 59.1% of respondents felt that oral-genital contact did not constitute having had sex, and 19.9% responded similarly regarding penile-anal intercourse.

In a review of the literature, we found minimal research investigating this issue among an HIV infected population.[14,15] Our goal in conducting this study was to: 1) replicate Sanders and Reinisch's study (a sample in which HIV status was unknown) in an HIV-positive sample, and 2) determine the extent to which perceptions of what constitutes having had sex vary within an HIV-positive population.

METHODS

The data were collected from surveys completed between November 2003 and February 2004, among HIV-infected individuals receiving medical and social services from a nonprofit AIDS service organizations in Dallas, TX. Over the three-month period, 279 unduplicated patients presenting for routine medical care completed surveys.

Patients were given a survey that they completed in the privacy of the medical examination room prior to their physician visit. Patients were instructed to answer each question "yes" or "no," and return the survey to clinic staff at the end of the medical appointment. Each survey was completed in a single session and reviewed for completeness by trained agency staff. Data were assessed by Chi-squared analysis.

The survey was an adaptation of the instrument developed by Sanders and Reinisch.[13] One additional behavior was included and one slightly altered in order to differentiate between insertive and receptive anal intercourse. The additional behavior was then arranged randomly among the questions to avoid the perception of a hierarchy. For each behavior, percentages were determined by gender and ethnic category as well as for the overall sample. The survey instrument read: "Would you say you 'had sex' with someone if the most intimate behavior you engaged in was … (mark 'yes' or 'no' for each question):"

A) person had oral (mouth) contact with **your** breasts or nipples?
B) **you** touched, fondled or manually stimulated a person's genitals?
C) **you** had oral (mouth) contact with a person's breasts or nipples?
D) **your** penis in a person's anus (rectum)?
E) penile-vaginal intercourse (penis in vagina)?
F) **you** touched, fondled or manually stimulated a person's breasts or nipples?
G) a person had oral (mouth) contact with **your** genitals?
H) **you** had oral (mouth) contact with a person's genitals?
I) deep kissing (French or tongue kissing)?
J) a person's penis in **your** anus (rectum)?
K) a person touched, fondled or manually stimulated **your** breasts or nipples?
L) a person touched, fondled or manually stimulated **your** genitals?

Table 1. Gender

Number and Percentage of "Yes" Responses when Asked, "Would You Say You Had Sex If …?"

Questions	Males (n=215)	Females (n=64)	Overall (n=279)
A. oral contact with your breasts or nipples?	83 (38.8%)	22 (36.1%)	105 (38.2%)
B. you touched a person's genitals?†	122 (57.0%)	26 (40.6%)	148 (53.2%)
C. oral contact with another person's breasts or nipples?‡	101 (47.0%)	14 (21.9%)	115 (41.2%)
D. For males: your penis in a person's anus?	168 (78.9%)	0 (n/a)	168 (78.9%)
E. you had penile-vaginal intercourse?	170 (80.2%)	46 (83.6%)	216 (80.9%)
F. you touched another person's breasts?§	89 (41.6%)	13 (21.3%)	102 (37.1%)
G. oral contact with your genitals?¥	172 (80.0%)	41 (66.1%)	213 (76.9%)
H. oral contact with another person's genitals?*	166 (77.6%)	41 (64.1%)	207 (74.5%)
I. deep kissing?	75 (34.9%)	26 (41.3%)	101 (36.3%)
J. a person's penis in your anus?‡	168 (78.5%)	31 (48.4%)	199 (71.6%)
K. a person touched your breasts?	72 (33.6%)	27 (42.2%)	99 (35.6%)
L. a person touched your genitals?	123 (57.7%	27 (45.0%)	150 (54.9%)

† Data are significant at p=0.021; ‡ Data are significant at p=0.000; § Data are significant at p=0.003; ¥ Data are significant at p=0.027; * Data are significant at p=0.034

Results are presented with percentages and Chi-squared analysis, utilizing Freeman-Tukey deviates.

RESULTS

The mean age of the sample was 37.5 years, with a range between 19–68 years of age. Seventy-seven percent of the sample was male, 23% female; 25% was white, 52% African-American, 19% Latino, and 4% did not identify with any of the above categories. Additionally, 68.4% of male respondents indicated male sex partners within the last 10 years, while 28.1% of females indicated female sex partners.

The survey sample represented 33% of the 842 HIV-infected patients in care at the AIDS Arms Inc./Peabody Health Center (PHC) in Dallas at that time, which exclusively sees an HIV-infected population. Comparatively, the population of PHC was 27% female, 22% white, 64% African-American, 12% Latino, with an average age of 37. Demographically, the survey sample closely mirrors the larger HIV/AIDS-infected population in Dallas. Surveillance data from the Dallas County Health Department indicate that, in 2003, females made up 20–24% of HIV/AIDS cases.[16] Our sample slightly overrepresents the proportion of HIV-positive African Americans (which ranges between 41–46% in county surveillance data) and underrepresents whites (35–39%). However, in recent years, HIV infection has been rapidly increasing among African Americans in Dallas while proportionately dropping among whites.

Table 1 depicts the overall "valid" percentages of persons answering "yes" to the "would you say you had sex if …?" question (includes only those who answered "yes" or "no") along with a breakdown by gender. While penile-vaginal intercourse had the highest percentage of "yes" responses, a substantial amount of respondents felt that this was not sex (19.1%).

Breast contact behaviors (questions A, C, F and K) and deep kissing (question I, 36.3%) received the lowest percentages of overall "yes" responses. However, there were significant gender differences for C (**you** had oral (mouth) contact with a person's breasts or nipples, $p<0.001$) and F (**you** touched, fondled or manually stimulated a person's breasts or nipples, $p=0.003$). In each of these cases, males were much more likely to attribute the behavior as sex. Female responses on breast contact items also varied markedly when considering the directionality of the behavior, with many being more likely to say they had sex when they were the recipient.

In contrast to breast contact items, for genital contact items (questions B, G, H and L), neither sex varied substantially according to directionality of the behavior. Males perceived oral genital contact (receptive $p=0.027$, active $p=0.034$) and touching another person's genitals ($p=0.021$), to be sex at significantly higher levels than females. Female respondents were less likely than males ($p<0.001$) to consider they that had sex after receptive anal intercourse. In addition, male respondents did not differentiate at all in viewing receptive (78.5%) and insertive (78.9%) anal intercourse as having had sex.

Table 2 depicts "valid" percentages of "yes" responses by ethnicity (African-American, Latino and white). Overall, white respondents consistently had higher percentages of "yes" responses than the other two groups (except for item I, deep kissing, where they had the lowest percentage). Whites were also the only group that had >90% of respondents answer affirmatively to any question (D, G, H and J).

Respondents among all three ethnic groups provided their lowest percentages for breast contact and deep kissing items, and there were no significant differences between groups for these behaviors. The directionality of breast contact behavior did not alter the responses for any group. Latinos provided a higher percentage of affirmative responses for deep kissing than for any of the breast contact items, and they were unique in this respect.

Directionality also did not appear to be a factor for any group's response to genital contact items (B, G, H and L). White respondents were significantly more likely than African Americans or Latinos to state that oral genital contact ($p<0.001$ for items G and H) was sex. African Americans were less likely than either Latinos or whites to perceive touching another person's genitals ($p=0.026$ for question B) as sex. This same occurrence approached significance as well ($p=0.06$) when directionality was reversed (question L).

Whites were significantly more likely than African Americans or Latinos to state that they would have had sex after either receptive or active anal sex ($p=0.006$ and $p<0.001$, respectively). The directionality of the anal sex items did not alter white responses.

Within ethnic groups, African Americans and Latinos gave their highest number of "yes" responses to "penile-vaginal intercourse" (76.8% and 80%, respectively). In contrast, whites gave higher "yes" percentages for anal contact (93.7% for active, 91.4% for receptive) and oral contact (91.4% for active and receptive) than for penile-vaginal intercourse (89.9%).

DISCUSSION

As seen in Table 3, the differences in responses between our HIV-positive sample and those in Sanders and Reinisch's study (unknown HIV status) are striking. While the hierarchical order of "yes" responses remains primarily the same in both studies

(with deep kissing and breast contact items receiving the fewest "yes" responses followed by genital touching, oral-genital contact, anal intercourse and vaginal intercourse), the actual percentage of "yes" responses vary greatly.

One of our hypotheses going into the study was that an ethnic minority population might demonstrate a different sense of what behaviors constituted sex than a largely white population. Indeed, minority respondents from our sample provided a much more inclusive definition of what it means to have had sex. In Sanders and Reinisch's study, >99% of the respondents agreed that penile-vaginal intercourse was sex, and for deep kissing and all breast contact items <4% agreed this was sex. Our sample never had >81% agreement overall (for penile-vaginal intercourse) and no behavior—not even deep kissing—had <35% agreeing that the behavior was sex.

There are likely multiple reasons for the differences in our findings, including having an older, predominately minority and largely male sample. In addition, it is possible that the terminology used in the survey questions was not understood by the patients.

Having HIV infection may also be a factor. Perhaps due to already having been infected with HIV through primarily sexual activity, our sample may be expressing a more generalized idea of what constitutes sex because they are interpreting it in terms of risk. For instance, at some level patients understand that when combined with the right set of circumstances, many of these behaviors could possibly lead to acquiring sexually transmitted diseases (such as herpes, gonorrhea, syphilis). However, patients also know, sometimes from personal experience, that not every occurrence of anal or vaginal sex will always result in HIV infection. This could possibly explain why all behaviors have ≥35% "yes" responses and none have >81% overall. In this light, responses are perhaps not so much a reflection of what behaviors patients consider to be sex as they are a reflection of the degree to which patients perceive these behaviors to carry a risk of HIV transmission.

Concern over the terminology used in the questions is particularly valid. The specific questions are consistent with those used by Sanders and Reinisch. In addition, the phrasing of the questions also tends to mirror the type of conversations that occur in medical practices. Most often, anatomical terms are used in lieu of more lay or street slang for sexual behavior. The fact that some questions may have been erroneously answered "yes" could be explained through patients not understanding or misinterpreting terms (e.g., penile for penal).

During the period from 1999–2002, approximately 64% of heterosexually acquired HIV infections reported in the United States were found to occur in females.[17] In light of these changes in the HIV epidemic, researchers have begun to pay increasing attention to high-risk sexual behaviors among females, such as anal sex.[18,19] HIV-infected women in our sample were significantly less likely than men to consider receptive anal intercourse and either giving or receiving oral sex to be sex. A clinician screening a female patient such as this would be likely to misinterpret the meaning of her response to questions addressing the practice of "safe sex" through condom use. Other research has identified the existence of significant misperceptions among minority women regarding the meaning of "safe sex"[20]. Would the patient above consider herself to still be practicing "safe sex" if she was not using condoms during oral-genital contact or anal intercourse but was for vaginal intercourse? If a clinician lacks a solid understanding of how this hypothetical patient defines "sex," these questions go unanswered or even unasked, and an HIV-positive woman

Table 2. Ethnicity

Number and Percentage of "Yes" Responses when Asked, "Would You Say You Had Sex If …?"

Questions	African Americans (n=145)	Latinos (n=53)	Whites (n=70)
A. oral contact with your breasts or nipples?	54 (37.2%)	19 (38.8%)	29 (41.4%)
B. you touched a person's genitals?†	65 (45.1%)	33 (62.3%)	45 (64.3%)
C. oral contact with another person's breasts or nipples?	62 (42.8%)	18 (34.0%)	33 (47.1%)
D. For males: your penis in a person's anus?‡	75 (73.5%)	30 (71.4%)	59 (93.7%)
E. you had penile-vaginal intercourse?	109 (76.8%)	36 (80.0%)	62 (89.9%)
F. you touched another person's breasts?	56 (38.6%)	16 (31.4%)	27 (39.1%)
G. oral contact with your genitals?§	107 (73.8%)	38 (74.5%)	64 (91.4%)
H. oral contact with another person's genitals?§	102 (70.3%)	36 (69.2%)	64 (91.4%)
I. deep kissing?	53 (36.6%)	24 (46.2%)	22 (31.4%)
J. a person's penis in your anus?§	96 (66.2%)	32 (61.5%)	64 (91.4%0
K. a person touched your breasts?	50 (34.5%)	17 (32.7%)	28 (40.0%)
L. a person touched your genitals?	69 (48.3%)	30 (60.0%)	46 (66.7%)

† Data are significant at p=0.026; ‡ Data are significant at p=0.006; § Data are significant at p=0.000

may continue to place herself and others at risk for (re)infection.

The 28.1% of female participants that affirmed having had a female sexual partner is an unusual finding and warrants confirmation in future surveys.

As the HIV epidemic moves well into its third decade, it has increasingly become a disease affecting African Americans and Latinos in the United States.[21] In our sample, African Americans and Latinos were less likely than whites to consider oral-genital contact to be sex. This same pattern also held true for anal intercourse.

Much more research is needed in this area to determine: 1) if these findings are representative of HIV-infected minority patients in other sites and, if so, 2) what association these perceptions of sex may have with the changing demographics of the epidemic. In addition, it is important to determine if these findings are representative of *uninfected* minority patients given the goal of primary HIV prevention.

Another relevant finding revolved around items B and L (touching the genitals). Overall, slightly more than half of the sample agreed that if this was the most intimate behavior engaged in then this was not sex. African Americans, in particular, were significantly less likely to consider that manually stimulating another's genitals was sex. When an HIV-positive patient states he/she is not having sex, could he/she actually be engaging in genital contact behaviors such as mutual masturbation? While mutual masturbation is certainly not the most effective way to transmit HIV, it is nonetheless possible if bodily fluid is transferred between participants. Clinicians may need to ask more precise questions to fully understand the sexual behaviors engaged in by their clients, assess their potential risk and counsel them on risk-reduction methods (e.g., is ejaculation occurring during mutual masturbation? Are sexual fluids being transferred between genitalia?). However, without a prior understanding of how patients conceptualize sex, this line of questioning would likely not occur.

CONCLUSION

That we were unable to replicate the findings of Sanders and Reinisch further substantiates their primary assertion that, "general agreement regarding what constitutes having 'had sex' and how sexual partners are counted cannot be taken for granted."[13] It is possible that the responses of patients in our sample include not only perceptions of what constitutes sex but also reflect what behaviors they have engaged in (i.e., marking "no" to anal intercourse items if they had never engaged in these behaviors). As such, future investigations should attempt to control for prior sexual behavior experience.

A larger concern is that doubt over the meaning of terms in the instrument (specifically penile-vaginal, or anus) may have resulted in the lower than expected percentages of "yes" responses for these items. When discussing sex with their patients, many clinicians use terminology identical to that in the survey, yet a small number of our respondents verbally expressed confusion over these terms. Other researchers have pointed out that terms commonly used to describe and categorize sexual behaviors are not necessarily universally understood.[22,23]

HIV in the United States is increasingly infecting women and minorities. In our HIV-positive sample, both of these groups were significantly less likely to state that high-risk sexual behavior, such as anal sex, was in fact sex. What possible impact might perceptions of sex be having on the HIV epidemic and what can clinicians do minimize any possible effects?

The CDC's recommendations for incorporating HIV prevention into the care of HIV-infected clients

Table 3. Comparison of Sanders and Reinisch and Rawlings et al

Number and Percentage of "Yes" Responses when Asked, "Would You Say You Had Sex If …?"

Questions	Sanders and Reinisch (n=599)	Rawlings et al. (n=279)
oral contact with your breasts or nipples?	3%	38.2%
you touched a person's genitals?	13.9%	53.2%
oral contact with another person's breasts or nipples?	3.4%	41.2%
your penis in a person's anus?	N/A	78.9%
a person's penis in your anus?	N/A	71.6%
penile-anal intercourse?	79.1%	N/A
you had penile-vaginal intercourse?	99.5%	80.9%
you touched another person's breasts?	3.4%	37.1%
oral contact with your genitals?	40.2%	76.9%
oral contact with another person's genitals?	39.9%	74.5%
deep kissing?	2.0%	36.3%
a person touched your breasts?	3.0%	35.6%
a person touched your genitals?	15.1%	54.9%

involves: 1) screening for HIV transmission risk behaviors and STDs; 2) providing brief behavioral risk-reduction interventions in the office setting and referring selected patients for additional prevention interventions and other related services; and 3) facilitating notification and counseling of sex and needle-sharing partners of infected persons.[3] Based upon the findings from these data, we assert that when following the above CDC guidelines, it is critical to first establish the patients' definitions of "sex" before inquiring about sexual activity and/or the kinds of "sexual" behaviors in which patients engage. Elicitation of patients' definitions of "sex" can easily be incorporated into risk-screening procedures through the use of the survey instrument as a screening tool. Once completed, the survey can then facilitate a more detailed and personalized assessment of sexual risk behaviors. Finally, as the meaning of "sex" increasingly appears to be both culturally and individually determined,[24] we not only recommend more research of this topic among HIV-infected patients but also (as is currently underway by the authors) research of clinicians themselves in order to further delineate understandings of "sex" and how they vary.[25]

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C A R E E R
O P P O R T U N I T Y