

The semantics of sexual behavior and their implications for HIV/AIDS research and sexual health: US and UK gay men's definitions of having "had sex"

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(Received 13 October 2009; final version received 1 February 2010)

Understanding the definition and meaning of the word "sex" has implications for sexual medicine, HIV/AIDS research, and clinical practices. Previous studies have reported variations in the definition of having "had sex" and the necessity of using behaviorally specific terminology when taking sexual histories and assessing sexual risk. The purpose of the current study is to assess gay men's definitions of what constitutes having "had sex." Two international convenience samples are compared: a UK sample of 180 self-identified gay men ranging from 18 to 56 years of age ($M = 36$ years; $SD = 8.29$) and a US sample of 190 self-identified gay men ranging 18–74 years of age ($M = 33.9$ years; $SD = 12.49$). Both groups were asked to indicate whether each of a list of sexual behaviors was considered having "had sex." Almost all participants ($\sim 95\%$) believed that penile–anal intercourse constituted having "had sex." US and UK gay men differed in defining the following as having "had sex": giving oral–genital stimulation (US 71.6%, UK 84.9%, $P = 0.002$); giving (G) and receiving (R) manual–anal stimulation (G: US 53.4%, UK 70.9%, $P = 0.001$; R: US 53.7%, UK 71.2%, $P = 0.001$); giving and receiving oral–anal stimulation (G: US 61.2%, UK 78.4%, $P < 0.001$; R: US 59.3%, UK 78.1, $P < 0.001$); and giving and receiving sex–toy stimulation (G: US 55%, UK 77.1%, $P < 0.001$; R: US 56.1%, UK 77.7%, $P < 0.001$). It is important to note that regardless of country there was not overall consensus on which behaviors constituted having "had sex." These findings reinforce the need for behavioral specificity in documenting sexual histories and assessing sexual risk. Further, researchers and clinicians should exercise caution by not assuming that their own definitions of the term "sex" is shared by their gay male participants or patients.

Keywords: meanings of sex; sex definitions; gay sex; sexual beliefs; sexual risk

Introduction

The definition and meaning of the word "sex" have implications for sexual health research, sexual medicine, HIV/AIDS research, and clinical practices. Several existing studies have reported variations in the definition of having "had sex" and the necessity of using behaviorally specific terminology when taking sexual histories (Binson & Catania, 1998; Bogart et al., 2000; Carpenter, 2001; Cecil, Bogart, Wagstaff, Pinkerton, & Abramson, 2002; Gute, Eshbaug, & Wiersma, 2008; Pitts & Rahman, 2001; Randall & Byers, 2003; Rawlings, Graff, Calderon, Casey-Bailey, & Pasley, 2006; Richters & Song, 1999; Sanders et al., 2010; Sanders & Reinisch, 1999), however, they did not specifically examine the definitions and attitudes of gay men, lesbian women, or bisexual individuals often due to low numbers of participants who identified as such. Given possible social differences and notable variances in sexual practices gay, lesbian, or bisexual participants or

patients may conceptualize the meaning of having "had sex" differently from heterosexual groups (Sanders & Reinisch, 1999). Consequently, different sexual practices and their conceptualizations may differentially, by sexual orientation, affect the accuracy of results from sexual history questionnaires routinely used in health screening and client/patient management, if ambiguous terminology is used instead of behaviorally specific criteria. To examine this possibility, further investigation is necessary in order to more fully understand how sexual minorities demarcate what constitutes having "had sex."

Since the onset of the HIV/AIDS epidemic, terminology such as "high risk" or "at risk" is often associated with the results of sexual histories and medical intake screenings. Therefore, it is highly important to clearly specify which behaviors participants may be engaging in, in order to accurately assess risk factors for the transmission of sexually transmitted infections (Rawlings et al., 2006). The

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Center for Disease Control and Prevention's (CDC's, 2003) guidelines for assessing risk include: whether a participant or patient has been engaging in sex; the number and HIV serostatus of sex partners; types of sexual activity; and condom usage. However, before researchers and clinicians can accurately assess whether a participant or patient is "engaging in sex" a clear understanding of the range of behaviors that the participant or patient considers sex is necessary. Other research in this area has denoted this misinterpretation as a type of misclassification bias (Crosby, DiClemente, Holtgrave, & Wingood, 2002; Sanders et al., 2010). The essence of a misclassification bias is simple – participants or patients are either incorrectly classified as having sex or incorrectly classified as not having sex (Sanders et al., 2010). Misclassification bias may be more likely to occur when a researcher or clinician, who may be heterosexual, uses his/her own or an ambiguous definition of having "had sex" to evaluate his/her sexual-minority participant or patient.

The goal of the current study was to explore how gay men define intimate behaviors as having "had sex" or not. To broaden our understanding of gay men's definitions of what constitutes having "had sex" data are reported from both a US and a UK sample of self-identified gay men. Definitions were then compared both within and across groups in order to determine if consistency exists within and across western gay cultures. To our knowledge, this is the first study to specifically explore the definitions focused on a sexual minority – gay men. Although previous studies have often included results from small groups of sexual minorities, the present study was designed to specifically assess gay men's definitions of what constitutes having "had sex." We hypothesized that: (1) there will not be consensus within samples as to what behaviors constitute having "had sex" (as indicated by variation in agreement across behaviors); (2) there will be some differences in the percentages of UK and US gay men who agree that a behavior constitutes having "had sex"; and (3) findings from these samples will diverge from those reported in the literature from predominantly heterosexual samples. These hypotheses draw on previous research investigating the semantics of sexual behavior in which sexual orientation, culture, and sexual practices are hypothesized to be influential in an individual's definition of having "had sex" (Sanders & Reinisch, 1999).

Method

Research teams in the UK (Q.R. and D.A.B.) and the USA (B.J.H. and S.A.S.) decided to combine sepa-

rately acquired datasets for a joint publication on self-identified gay men's views of what behaviors constitute having "had sex."

UK sample

The UK sample of gay men were recruited using convenience sampling followed by snowball sampling whereby those who took part at the convenience sampling stage solicited other gay male friends to also complete the paper and pencil survey. All men lived in the London metropolitan area and the South East of England. Data were collected from December 2005 to March 2007. Written informed consent was obtained from participants and ethical procedures were approved by the university's ethics committee. The sample was restricted to self-identified "homosexual/gay" men ($n = 180$).

US sample

In an effort to obtain a broad range of US participants an online survey was constructed. Participants were recruited from institutional listservs (e.g., university student groups and Gay, Lesbian, Bisexual, and Transgender (GLBT) support services) and electronic flyers that were disseminated on a popular US social networking website (i.e., facebook). Permission was granted from all listservs and advertising guidelines and protocols were followed. In addition, a link to the questionnaire was posted on The Kinsey Institute website and snowball sampling methods were used to expand recruitment. Data were collected from July 2007 to December 2007. All research procedures were approved by the university's institutional review board human subjects committee. The sample is limited to those men who self-identified as "gay/homosexual" ($n = 190$).

UK measures

UK participants were asked to complete a short, 10-minute paper and pencil questionnaire. This questionnaire asked sociodemographic questions including: age, relationship status, whether they were currently involved with more than one partner, ethnic association, and education. Sexual orientation was assessed by self-identification in which participants indicated whether they identified as "bisexual" or "homosexual/gay." Participants were asked the following stem question: "Would you say you 'had sex' if the following intimate behaviours took place (please circle). Please answer all items, not only those you have experienced." This was followed by a set of behaviorally specific items describing various activities (listed in Table 1). Response options were: 1

Table 1. Percentages for participants' response to the question, "Would you say you 'had sex' with someone if the most intimate behavior you engaged in was..."

Behavior	Percentage indicating "had sex" (95% confidence interval)			
	USA, July 2007 to December 2007 (<i>n</i> = 190)		UK, December 2005 to March 2007 (<i>n</i> = 180)	
	Yes (%)	No (%)	1–2, agree (%)	3–5, non-agree (%)
Deep kissing	16.3 (11.0–21.6)	83.7 (78.4–89.0)	17.3 (11.8–22.8)	82.7 (77.2–88.2)
You manually stimulated a persons breasts or nipples	19.5 (13.9–25.1)	80.5 (74.9–86.1)	21.2 (15.2–27.2)	78.8 (72.8–84.8)
A person manually stimulated your breasts or nipples	20.5 (17.7–26.3)	79.5 (73.7–85.3)	20.0 (14.1–25.9)	80.0 (74.1–85.9)
You licked, sucked, or orally stimulated a person's breasts or nipples	23.7 (17.6–29.8)	76.3 (70.2–82.4)	30.3 (23.6–37.0)	69.7 (63.0–76.4)
A person licked, sucked, or orally stimulated your breasts or nipples	21.6 (15.7–27.5)	78.4 (72.5–84.3)	19.0 (13.3–24.7)	81.0 (75.3–86.7)
You touched, fondled, or manually stimulated a person's genitals	50.5 (43.4–57.6)	49.5 (42.–56.6)	47.5 (40.2–54.8)	52.5 (45.2–59.8)
A person touched, fondled, or manually stimulated your genitals	50.0 (42.9–57.1)	50.0 (42.9–57.1)	48.6 (41.3–55.9)	51.4 (44.1–58.7)
You licked, sucked, or orally stimulated a person's genitals*	71.6 (65.2–78.0)	28.4 (22.0–34.8)	84.9 (79.7–90.1)	15.1 (9.9–20.3)
A person licked, sucked, or orally stimulated your genitals**	72.6 (66.2–79.0)	27.4 (21.0–33.8)	84.2 (78.9–89.5)	15.8 (10.5–21.1)
Penile–vaginal intercourse	84.6 (79.5–89.7)	15.4 (10.3–20.5)	86.6 (81.6–91.6)	13.4 (8.4–18.4)
Receptive penile–anal intercourse	96.3 (93.6–99.0)	3.7 (1.0–6.4)	94.9 (91.7–98.1)	5.1 (1.9–8.3)
Insertive penile–anal intercourse	94.7 (91.5–97.9)	5.3 (2.1–8.5)	94.4 (91.0–97.8)	5.6 (2.2–9.0)
You touched, fondled, or manually stimulated a person's anus***	53.4 (46.3–60.5)	46.6 (39.5–53.7)	70.9 (64.2–77.6)	29.1 (22.4–35.8)
A person touched, fondled, or manually stimulated your anus***	53.7 (46.6–60.8)	46.3 (39.2–53.4)	71.2 (64.6–77.8)	28.8 (22.2–35.4)
You licked, sucked, or orally stimulated a person's anus****	61.2 (54.3–68.1)	38.8 (31.9–45.7)	78.4 (72.4–84.4)	21.6 (15.6–27.6)
A person licked, sucked, or orally stimulated your anus****	59.3 (52.3–66.3)	40.7 (33.7–47.7)	78.1 (72.0–84.2)	21.9 (15.8–28.0)
You used sex toys to stimulate a person****	55.0 (47.9–62.1)	45.0 (37.9–52.1)	77.1 (70.9–83.3)	22.9 (16.7–29.1)
A person used sex toys to stimulate you****	56.1 (49.0–63.2)	43.9 (36.8–51.0)	77.7 (71.6–83.8)	22.3 (16.2–28.4)

P* = 0.002; *P* = 0.008; ****P* = 0.001; *****P* < 0.001.

(strongly agree) to 5 (strongly disagree). Data from the questionnaires were then entered into SPSS for analyses.

US measures

For the US sample, participants were asked to complete a brief, 10-minute online questionnaire consisting of sociodemographic questions including: age, education, and ethnic group. Sexual orientation was also assessed by self-identification in which participants indicated the term (i.e., straight/heterosexual, gay/homosexual, bisexual, etc.) that would best describe their current sexual orientation. Participants were asked by the following stem question: "Would you say you 'had sex' with someone if the most intimate behaviour you engaged in was...." This was followed by the same set of behaviorally specific items (listed in Table 1). US participants were required to choose one of the following response options: "yes," "no," (as done in previous research, Pitts & Rahman, 2001; Sanders et al., 2010; Sanders & Reinisch, 1999) or "I choose not to answer" (given that the online survey required each item be answered). At the end of the questionnaire, participants were asked explicitly if they "took the survey seriously." Only those participants who indicated that they had taken the survey seriously and that we should "use my information in the study" were included (>98%).

Data analysis

For the UK sample the response options were recoded into "agree" (responses 1–2) and "non-agree" (responses 3–5) for comparison to "yes" and "no" response from the US sample. The "I choose not to answer" response in the US was treated as missing data. The following inferential statistics were used: *t*-tests for US/UK differences in age (all assumptions were met); chi-square tests using with Yates correction for UK–US differences in ethnicity (white coded as yes/no); McNemar tests to compare the proportions of yes/agree responses across behaviors within a sample; and chi-square tests for analysis of item comparisons between US/UK groups. Additionally, a Holm–Bonferroni method was applied to the interpretation of data to deal with multiple group comparisons. The Holm–Bonferroni method is a sequentially rejective multiple test procedure with multiple-level significance alphas dependent on the number of statistical comparisons and their rank order (Holm, 1979).

Results

The UK sample was comprised of 180 men. The mean age of the UK sample was 36.0 years ($SD = 8.29$), with a range between 18 and 56 years of age. The majority of participants (87.2%) identified as white and all participants sexually identified as gay/homosexual male. The US sample consisted of 190 men with a mean age of 33.9 years ($SD = 12.49$), and a range of 18–74 years of age. Similarly to the UK group the majority of participants (88.9%) identified as Caucasian or white and all participants self-identified as gay. There were no significant differences between the two groups in age ($t = -1.82$, $P = 0.07$) or ethnicity ($\chi^2 = 0.26$, 1 , $P = 0.61$).

Table 1 depicts the percentage of respondents who "yes/agree" or "no/non-agree" for each type of sexual behavior. Almost all participants (US and UK) believed that both receptive penile–anal intercourse (US 96.3%; UK 94.9%) and insertive penile–anal intercourse (US 94.7%; UK 94.4%) constituted having "had sex." Interestingly, fewer but still a large majority (US 84.6%; UK 86.6%) agreed that penile–vaginal intercourse would count as having "had sex." Similarly to other studies with predominantly heterosexual samples, compared to other behaviors fewer participants considered deep kissing, manual breast or nipple stimulation, and oral breast or nipple stimulation as sex.

For the US sample, answers for giving and receiving behaviors did not differ significantly for manual–breast, oral–breast, manual–genital, oral–genital, penile–anal intercourse, manual–anal, oral–anal, and use of sex toys. A similar pattern was found for the UK sample, except that significantly more men agreed that performing oral–breast stimulation constituted having "had sex" than did so for receiving oral–breast stimulation (McNemar test $P = 0.001$).

For both samples, compared to penile–anal intercourse, significantly fewer men agreed that penile–vaginal intercourse constituted having "had sex" (McNemar test $P < 0.002$). For the US sample, penile–vaginal intercourse was more frequently endorsed than was oral–genital contact, which in turn was more frequently endorsed than was oral–anal contact (McNemar test $P < 0.01$). For the UK sample, answers were similar for oral–genital contact, oral–anal contact, and use of sex toys (McNemar test $P > 0.07$) and for oral–genital contact and penile–vaginal intercourse (McNemar test $P > 0.20$). In summary, within both samples examining the diversity of the percentages agreeing that various behaviors constitute having "had sex" confirms hypothesis 1 regarding a lack of consensus.

Confirming hypothesis 2, the US and UK samples did significantly differ on percentage agreement for some behaviors. The US and UK groups differed in their assessment of giving and receiving oral–genital stimulation. Proportionally more in the UK group (84.9%) compared to the US group (71.6%) considered giving oral–genital stimulation to be sex ($\chi^2 = 9.57, 1, P = 0.002$). Similarly, receiving oral–genital stimulation was more likely to be considered having “had sex” for the UK group (84.2%) compared to the US group (72.6%; $\chi^2 = 7.17, 1, P = 0.008$).

The US and UK groups also significantly differed in their assessment of whether manual stimulation to the anus (either given or received) was considered having “had sex.” For the UK group, 70.9% considered giving manual stimulation to another person’s anus as sex, whereas only 53.4% of the US group considered this behavior as sex ($\chi^2 = 11.96, 1, P = 0.001$). Additionally, 71.2% of the UK group considered receiving stimulation to the anus as sex, whereas only 53.7% of the US group identify this as having “had sex” ($\chi^2 = 11.93, 1, P = 0.001$).

The two groups of gay men differed significantly in their responses to both giving and receiving oral stimulation to the anus. In the UK group, 78.4% considered giving oral stimulation to a person’s anus as sex while only 61.2% of the US group classified this behavior as sex ($\chi^2 = 12.75, 1, P < 0.001$). In regards to receiving oral–anal stimulation, 78.1% of the UK group considered this sex compared to 59.3% of the US group ($\chi^2 = 15.04, 1, P < 0.001$).

The two groups differed most significantly in whether they considered sex-toy stimulation as having “had sex.” If an individual used sex toys to stimulate another person, 77.1% of the UK group considered this sex compared to only 55% of the US group ($\chi^2 = 19.89, 1, P < 0.001$). When receiving sex-toy stimulation from another person, 77.7% of the UK group identified this behavior as sex, whereas only 56.1% of the US group would classify this as having “had sex” ($\chi^2 = 19.22, 1, P < 0.001$).

Discussion

This is the first documentation of which sexual behaviors are considered to be having “had sex” among a sexual minority. Additionally, gay men from two western cultures, US and UK, were assessed. In the both samples, US and UK gay men, there was no consensus on what behaviors constituted having “had sex.” These findings highlight the diversity of definitions regarding what behaviors are considered to be sex, not only by sexual orientation but also by culture (USA vs. UK) as well. Comparisons of these data from gay men with previously published findings

from predominantly heterosexual groups suggest that proportionally more gay men include manual, oral, anal, and sex-toy behaviors in their definitions of sex–confirming hypothesis 3 (Gute et al., 2008; Pitts & Rahman, 2001; Randall & Byers, 2003; Rawlings et al., 2006; Sanders & Reinisch, 1999; Von Sadovszky, Keller, & McKinney, 2002). In predominately, heterosexual samples almost all participants (95%+) considered penile–vaginal intercourse as having “had sex”; whereas only approximately 80% consider penile–anal intercourse to be so (Sanders et al., 2010; Sanders & Reinisch, 1999). In these gay male samples, almost all considered penile–anal intercourse (95%) as having “had sex”; whereas significantly fewer (86%) classified penile–vaginal intercourse as such ($P < 0.002$). It is important to note that participants were asked their opinions about the behaviors regardless whether or not they had participated in the behavior. Regardless of sexual orientation, many participants are likely to be giving opinions for behaviors in which they have not engaged. Also, self-identified sexual orientation does not necessarily predict an individuals’ behavioral sexual history (e.g., Reinisch, Sanders, & Ziemba-Davis, 1988).

Significantly more UK than US gay men considered oral–genital stimulation, manual–anal stimulation, oral–anal stimulation, and use of sex toys as having “had sex.” Although it is possible that these group differences may be related to the slightly different wording in stem questions or some other aspect of methodology, such as response options or online vs. paper and pencil assessment, it may well be that they reflect some cultural differences in the meanings attributed to these behaviors as has been the case for predominately heterosexual samples from Australia (Richters & Song, 1999), Canada (Randall & Byers, 2003), USA (Binson & Catania, 1998; Gute et al., 2008; Sanders et al., 2010; Sanders & Reinisch, 1999), and UK (Pitts & Rahman, 2001). Thus, these findings suggest that more cross-cultural research is needed on this topic.

The study has the usual limitations of self-report methodologies and use of convenience samples which are typical in sex research on sexual minorities. Additionally, the slightly different methodologies used in the USA and UK may confound our findings. These include: method of assessment (online vs. paper and pencil); nature of response options (scale vs. dichotomous); method of recruitment (in-person vs. online); context of other items in the US and UK questionnaire; the greater age range in the US sample; and slightly different time period of assessment (USA 2007 vs. UK 2005–2007). Future research could

benefit from using the same methodologies cross-culturally.

Given that an individual's definition of "sex" influences the number of reported "sexual partners" and the frequency of reported "sexual activity," it is crucial that researchers and clinicians minimize ambiguity and utilize behaviorally specific criteria when making sexually transmitted infection (STI) and HIV/AIDS risk assessments. When answering questions about frequency of sexual behaviors and number of sex partners, would a gay man include oral sex and oral-sex partners if he would *not* say he "had sex" if oral-genital contact was the "most intimate behaviour [he] engaged in" (28% of the US sample)? If not, his risk for STI infection may be underestimated. On the other hand, risk may be overestimated for a gay man who is among the 20% for whom manual-breast stimulation would be sufficient to count as having "had sex." Therefore, establishing a clear definition of what behaviors the participant or patient believes constitutes having "had sex" is necessary in order to accurately assess STI risk.

Fortunately, acquiring the participant's or patient's definition of "sex" can easily be incorporated into most sexual histories and risk-screening procedures. In questionnaires and surveys avoiding ambiguous terminology in favor of behaviorally specific questions can solve the problem. In dialog, typical of clinical settings, establishing a mutual understanding of the term "sex" will more accurately reflect the sexual repertoire of the patient thereby promoting the most appropriate sexual health intervention or treatment.

Behaviors that constitute having "had sex" have been demonstrated to be varying across several factors including age (Sanders et al., 2010); gender (Peterson & Muehlenhard, 2007; Sanders & Reinisch, 1999); culture (Pitts & Rahman, 2001; Richters & Song, 1999); HIV serostatus (Rawlings et al., 2006); and now sexual orientation. Fruitful areas for future research into the meanings of sexual words and sexual behaviors themselves include additional assessment of cultural and subcultural (e.g., sexual orientation, ethnic differences) influences on these concepts. Additionally, future studies focused on assessing what individuals consider having "had sex" when reporting their sexual history to a practitioner in a medical setting could have significant clinical implications. Such research may reveal a risk/benefit ratio which participants and patients may use in order to construct their definitions of having "had sex" or number of "sexual partners" based on the perceived cost of being labeled "at risk," "sexually compulsive," or "promiscuous." Conversely, participants and patients may also construct their definitions of

"sex" based on the benefit of receiving the most accurate assessment and treatment. Thus, research examining how individuals conceptualize their definitions of having "had sex" or the number of "sexual partners" in a medical-care setting is necessary to fully examine the complexity in which individuals describe their behaviors as having "had sex" or not.

In conclusion, these findings indicate that special attention should be given to the semantics of sexual behaviors in both research and clinical settings as the definitions of having "had sex" are not consistent across sexual orientations, within sexual orientation, and across cultures. Variations in the definition of the term "sex" in regards to both sexual orientation and sexual practice further substantiate the original statement of Sanders and Reinisch (1999) that a "general agreement regarding what constitutes having 'had sex' cannot be taken for granted." Therefore, it is the responsibility of the researcher or clinician to exercise caution and use behaviorally specific language to ascertain accurate sex-behavior information from their participant or patient and not rely on the assumption that their own definition of the term "sex" is shared with their participant or patient especially when assessing the transmission of STIs (e.g., HIV/AIDS).

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