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Definitions of Sexual Behavior Among Young Adults

Hannah Clark
Psychology
The University of North Carolina at Asheville
One University Heights
Asheville, North Carolina 28804 USA

Faculty Advisor: Dr. Melissa Himelein

Abstract

Much cognitive and definitional ambiguity surrounds the idea of “having sex,” especially among young adults. Researchers have attempted to determine what contextual factors influence university-aged individuals in their understanding and subsequent labeling of sexual behavior. However, previous investigations have been based on heterosexual populations, using questionnaires that may not apply to sexual minorities. The purpose of this study was to gather and compare definitions of sex among university-aged adults of varying sexual and gender identities. This study attempts to re-conceptualize sex definitional research through revised survey measures and varied sampling techniques. In particular, additional sexual behaviors were adapted from public health research of sexual minorities. Analyses of both quantitative and qualitative data are employed in the effort to clarify behaviors that are labeled as “sex” and the contextual factors affecting these definitions. We found higher endorsement of oral sex among females and sexual minorities as well as strong agreement among all participants that anal sex is considered to be sex. In addition, broader definitions of sex were found to be more likely among females and sexual minorities, and the presence of orgasm emerged as a significant variable in deciding whether to label a particular behavior as sex. The additional sexual behaviors had varying levels of endorsement, but were consistently included in sexual minorities’ definitions of sex. Future sexuality research should strive to incorporate more gender and orientation minorities and adjust their demographics and measures accordingly.

1. Introduction

In health classrooms and doctor’s offices, on talk shows and television, the topic of sex is regularly mentioned. But does this idea match what we mean when amongst friends and romantic partners? Young adults, in particular, have developed a specific and nuanced vocabulary to describe their sexual encounters, which can change depending on context and inflection. Behind the vagueness of “hooking up” and “messing around,” however, lies the core concept of “having sex.” Much research has been done in the previous decades to understand what “having sex” can mean among university-age individuals. Previous studies have shown that there is not always a consensus on which behaviors are seen as “sex” intrinsically.

The first empirical study to ask the question, “Would you say you ‘had sex’ if...” was conducted in 1999. The researchers surveyed 599 undergraduate students from a large midwestern university about sexual behaviors as a part of a larger project for the Kinsey Institute for Research in Sex, Gender, and Reproduction Studies.¹ Given a list of 11 behaviors presented in non-hierarchical order (e.g., “touching a person’s genitals,” “penile-vaginal intercourse,” “anal intercourse”), participants decided if each behavior constituted “sex,” if it were the most intimate or advanced behavior they engaged in with a partner. Participants completed paper surveys in supervised group settings over a 36 day period. The results were analyzed to determine what consensus, if any, was found for the 11 behaviors. Almost everyone agreed that penile-vaginal sex was, indeed, sex (99.5%); however, only 81% considered anal sex to be sex, and roughly 40% viewed oral sex as sex.¹

Contextual factors can play a role in determining one's definition of sex. For example, young adults can have a more narrow definition for losing their virginity than for having sex, leaving some behaviors to fall one way or the other depending on previous experience.² Variables such as which partner is the performer (as opposed to the recipient) of a particular behavior can also considerably change whether we call a certain behavior "sex." Individuals are more likely to label an action as "having sex" if it is seen as unfaithful; additionally, young adults have a broader definition of their partner's unfaithful behavior than for themselves.³

Previous research has also emphasized gender as an important factor in determining the relative broadness or narrowness of an individual's definition of sex (i.e., broad definitions incorporate a greater number of behaviors in the definition of sex than narrow definitions). In previous decades, it was reported that males consistently held a broader definition of having sex than females.¹⁴ However, some more recent studies have shown that this effect has decreased to a nonsignificant size, perhaps suggesting that females are broadening their personal definitions of sex in line with those males.²⁵ This could also indicate that gender is not the most significant variable when it comes to finding determinants of sexual definitions.

Length of time of the relationship between two partners appears to be important in definitions of sex as well. One of the most common factors that influences individuals' conceptualization of sexual behavior is their respective relationship to a given partner. Trotter and Alderson utilized a three-tiered relationship variable in their survey (i.e. not dating, one date, and dating three months or more) to measure the significance of relationship length.² Compared to new relationships or one-night stands, young adults have a broader definition of "sex" if they are in a long-term relationship with their sex partner.²⁶ Even within a single sexual encounter, the length of time a behavior lasts can change minds. In Peterson and Muehlenhard's analysis of qualitative responses, they found consistently that if a behavior was initiated but quickly disrupted, participants would not include this into their sexual experience schema.⁶ Even if the behavior was penile vaginal intercourse, perhaps the most common definition of sex, it essentially "didn't count" if interrupted.

Arguably the most deciding contextual factor in defining "having sex" is the presence of an orgasm. Often seen as the "completion" or "consummation" of a sex act, an orgasm (especially a male orgasm) can bear great importance in determining if a given behavior is considered to be sex by research participants. To study this issue, researchers typically list each sexual behavior with two distinctions: with orgasm and without orgasm. The "with-orgasm" variable for behaviors almost always increases the number of participants who affirm a given act as sex.³⁶⁵²⁷

Previous research has not examined the effect that sexual orientation and gender identity might have on young adults' definitions of having sex. Trotter and Alderson suggested that students' sexual orientation is likely to affect their definitions of sex, but they only incorporated heterosexual respondents in their study. The voices of sexual minorities have been largely unexamined due to low numbers of LGBTQIA¹ participants. The present study hopes to provide a more inclusive look at human sexuality by sampling heterosexual and sexual minority populations. A dual paper and online survey method was used, in part because online anonymity can engender more truthful responses to sensitive topics such as sexuality and sexual behavior.⁸ Participants were asked to imagine a hypothetical sexual encounter with the partner of their choice; in this encounter, participants were to decide if they would consider various behaviors as "having sex."

2. Methods

2.1 Sample Recruitment

Data were gathered from one small, public university in the southeast and eight online sources. After obtaining IRB approval from the university, surveys were administered in four undergraduate courses: two health and sexuality courses, one sociology and sexuality course, and one psychology course ($n=76$). Surveys were also collected by posting information about the research and a link to the survey at several online communities, some of which were sexuality-related. These included the Facebook page of Transcending Boundaries, a non-profit organization focused on gender and sexuality minorities; four online communities on reddit.com, an online community comprised of user-generated content (*r/sex*, *r/lgbt*, *r/asktransgender*, and *r/SampleSize*); two sex-positive, feminist blogs belonging to undergraduates; and the investigator's Facebook page. A total of 1,371 additional surveys were submitted online.

2.2 Participant Characteristics

Participants answered 10 demographic questions pertaining to age, sex, gender, sexual orientation, ethnicity, race, and religious affiliation. Gender status was ascertained by asking participants for both their sex (“At birth, were you described as...[male, female, intersex]?”) and their gender (“Which of the following describes how you think of yourself...[male, female, in another way]?”). Sexual orientation was determined in three parts: self-identification, previous sexual history, and attraction.

A large number of online participants (n = 612) and three university participants did not complete at least 50% of the survey and were excluded from consideration. In addition, 241 (237 online and 4 university) participants were excluded because they were outside of the age parameters (18-25), and 109 online participants were excluded because their country of origin was outside the United States or Canada. The final sample consisted of 481 participants (412 online and 69 university respondents), including 150 men, 287 women, 22 transmen, 4 transwomen, and 17 individuals who identify as genderqueer. The sample’s mean age was 20.84. Participants were 66.3% heterosexual, 6.2% gay or lesbian, 24.7% bisexual, and 2.1% asexual. The sample was 80% Caucasian, 5.2% Asian or Asian American, 2.9% African American, 5.8 % Latino (5.4% Latino White, 0.4% Latino Black), 0.4% Native American, 4.0% Mixed Race, and 1.5% other. Finally, the vast majority of the sample was nonreligious or Agnostic/Atheist (76%), with 12.5% identifying as Protestant, 6.9% Roman Catholic, 1.9% Jewish, and 5.8% as “other.”

2.3 Measures

Relevant to the current study, participants were asked to imagine a sexual encounter with a partner of their choosing. They were then asked the question, “Would you say that you ‘had sex’ if the most intimate behavior you engaged in with another person was ____?” A table consisting of fourteen behaviors was provided, in which respondents could mark “yes,” “no,” or “not applicable.” Behaviors were divided into separate performer/receiver options; each item was also divided into “with orgasm” and “no orgasm.” The table was based on the sex definitional research of Sanders and Reinisch, with adaptations by Randall and Byers.¹⁵

Because previous research focused on heterosexuals’ definitions of sex, many of the sexual behaviors on the chart were limited to those that are anatomically possible or behaviorally typical for heterosexuals. The table in this study was adapted to incorporate behaviors more inclusive of *all* sexual orientations by changing the language and adding six additional sexual behaviors (ASBs). The ASBs were taken from an instrument used in a public health study focused on sexual histories and practices of female bisexuals and lesbians.⁹ The behaviors were then reworded to be applicable to both males and females. After developing a preliminary ASB list, the researcher consulted with two campus experts on sexuality studies to verify that the new list of behaviors was both inclusive and accurate. The final list, after modifications suggested by the expert consultants, is presented in Table 1.

Table 1. List of additional sexual behaviors (ASBs)

| |
|--|
| Genital-genital contact |
| The person penetrated your vagina with a sex toy |
| You penetrated the person’s vagina with a sex toy |
| The person penetrated your anus with fingers, hand, or sex toy |
| Penetrating the person’s anus with fingers, hand, or sex toy |
| The person had oral contact with your anus |
| Oral contact with the person’s anus |

3. Results

Because of low numbers of gender minority participants, those who identified as transgender, agender, and genderqueer were left out of the gender findings. The resulting sample size was 435 participants. Table 2 displays the overall findings without these three gender categories. The behaviors are listed in order from most included to least included.

Table 2. Percentage of participants, by gender, who included each behavior in their definition of sex

| Behavior | | Male (n= 150) | Female (n=287) |
|--|-------------|---------------|----------------|
| Penile-vaginal intercourse* | with orgasm | 98.7% | 99.3% |
| | no orgasm | 97.3% | 98.9% |
| Penile-anal intercourse* | with orgasm | 92.7% | 94.8% |
| | no orgasm | 90% | 93% |
| Genital-genital contact | with orgasm | 58% | 63.3% |
| | no orgasm | 52.7% | 56.7% |
| Oral contact with the person's genitals* | with orgasm | 46.7% | 63.1% |
| | no orgasm | 42% | 58.9% |
| The person had oral contact with your genitals* | with orgasm | 47.7% | 63.1% |
| | no orgasm | 43.9% | 58.6% |
| The person penetrated your vagina with a sex toy | with orgasm | 28.9% | 59.4% |
| | no orgasm | 27.5% | 57% |
| You penetrated the person's vagina with a sex toy | with orgasm | 38% | 58.7% |
| | no orgasm | 34% | 55.5% |
| The person penetrated your anus with fingers, hand, or sex toy | with orgasm | 42% | 54% |
| | no orgasm | 38.7% | 50.9% |
| Penetrating the person's anus with fingers, hand, or sex toy | with orgasm | 40% | 53.7% |
| | no orgasm | 36.7% | 49.1% |
| Oral contact with the person's anus | with orgasm | 31.3% | 51.9% |
| | no orgasm | 28% | 47.9% |
| The person had oral contact with your anus | with orgasm | 32.7% | 51.9% |
| | no orgasm | 29.3% | 47.7% |
| The person touched your genitals* | with orgasm | 24% | 37.3% |
| | no orgasm | 12% | 26% |
| Touching the person's genitals* | with orgasm | 26% | 36.2% |
| | no orgasm | 14% | 24.2% |
| Masturbating to orgasm in each other's presence* | with orgasm | 14% | 26.3% |

3.1 Findings Related to Gender

Similar to previous research, most participants endorsed penile-vaginal intercourse in their definitions of sex. Between 90-94.8% of participants included penile-anal intercourse in their definitions of sex as well, a noticeable increase in endorsement compared to previous research.¹⁰³⁷⁵²

Males' and females' definitions of sex showed different ideas about oral-genital behaviors. Men had a 15.9% lower inclusion rate than females for oral sex ending in orgasm, and 15.8% lower rate when there was no orgasm. It is to be noted that this is a consistent difference between genders; the role of giver and receiver made no difference for males or females.

This gender difference is much smaller than in other studies, largely due to the fact that the female inclusion rate is higher than in other samples.¹⁰² However, comparison to past research is somewhat inappropriate, given that the present sample has a health representation of sexual minority participants whereas previous research generally focused only on heterosexual respondents.

Male inclusion of sexual behaviors ranged from 14% to 98.7%, while female inclusion spanned slightly higher at 26.3% to 99.3%. Overall, there was a 13.73% difference in inclusivity or broadness of definition between the two genders, with females having a broader definition of sex than males. This is seen at its highest for "you penetrated

the person’s vagina with a sex toy,” in which 58.7% of females considered this behavior as having sex, whereas only 28.9% of males did the same.

3.1.1. orgasm variable

The presence or absence of an orgasm proved to be a very important deciding factor for participants. In every behavior, an orgasm increased the level of inclusion in both genders. Within each behavior, the “with orgasm” option was subtracted from the “no orgasm” option. These rates were then averaged to determine the overall effect size of an orgasm. The presence of an orgasm increased the level of definitional inclusion for females by 4.79% and for males by 4.66%. Orgasm made the least difference for penile-vaginal sex for both genders (1.4% for males and 0.4% for females). Alternatively, manual stimulation of the genitals (“the person touched your genitals” and “touching the person’s genitals”) was most affected by an orgasm, with roughly a 12% difference in definitional inclusion for both genders.

3.2 Findings Related to Sexual Orientation

Because of the low number of asexual participants, these individuals were left out of the orientation findings. The resulting sample size was 468. The following table displays participants’ definitions of sex by orientation.

Table 3. Percentage of participants who included each behavior in their definition of sex by orientation

| Behavior | | Heterosexual (n=319) | Gay/Lesbian (n=30) | Bisexual (n=119) |
|--|-------------|-------------------------|-----------------------|---------------------|
| Penile-vaginal Intercourse* | with orgasm | 99.1% | 96.7% | 100% |
| | no orgasm | 98.7% | 93.3% | 100% |
| Penile-anal intercourse* | with orgasm | 92.8% | 100% | 97.5% |
| | no orgasm | 90.9% | 96.7% | 96.6% |
| Genital-genital contact | with orgasm | 51.7% | 86.7% | 88.1% |
| | no orgasm | 47.2% | 73.3% | 83.6% |
| Oral contact with the person’s genitals* | with orgasm | 48.9% | 86.7% | 81.5% |
| | no orgasm | 44.5% | 83.3% | 79.5% |
| The person had oral contact with your genitals* | with orgasm | 48.4% | 86.7% | 84% |
| | no orgasm | 45.1% | 80% | 80.3% |
| The person penetrated your vagina with a sex toy | with orgasm | 38.2% | 73.3% | 78.2% |
| | no orgasm | 37.2% | 70% | 75.2% |
| You penetrated the person’s vagina with a sex toy | with orgasm | 39.9% | 80% | 86.6% |
| | no orgasm | 37.9% | 73.3% | 82.1% |
| The person penetrated your anus with fingers, hand, or sex toy | with orgasm | 40.8% | 80% | 76.5% |
| | no orgasm | 39.2% | 73.3% | 70.9% |
| Penetrating the person’s anus with fingers, hand, or sex toy | with orgasm | 38.6% | 83.3% | 77.3% |
| | no orgasm | 35.7% | 70% | 73.5% |
| Oral contact with the person’s anus | with orgasm | 35.4% | 76.7% | 72.3% |
| | no orgasm | 33.3% | 66.7% | 66.7% |
| The person had oral contact with your anus | with orgasm | 35.4% | 76.7% | 74.8% |
| | no orgasm | 33.2% | 63.3% | 69.2% |
| The person touched your genitals* | with orgasm | 22.3% | 53.3% | 62.2% |
| | no orgasm | 13.8% | 33.3% | 46.2% |
| Touching the person’s genitals* | with orgasm | 22.3% | 53.3% | 63% |
| | no orgasm | 13.8% | 33.3% | 45.3% |

| | | | | |
|--|-------------|-----|-------|-------|
| Masturbating to orgasm in each other's presence* | with orgasm | 16% | 24.1% | 47.1% |
|--|-------------|-----|-------|-------|

Once again, the most included behaviors were penile-vaginal and penile-anal intercourse. However, bisexuals as well as gays and lesbians were more likely to include anal sex into their schema of having sex as compared to heterosexuals. Indeed, the largest trend throughout the data appeared to be gay, lesbian, and bisexual participants voicing broader definitions of sex than heterosexual participants. In many cases, heterosexual respondents had roughly two-thirds or even half the inclusion rate compared to LGB individuals. This trend was strongest with the additional sexual behaviors (ASBs) incorporated in this study. Of these behaviors, genital-genital contact had the highest inclusion rate for gay, lesbian, and bisexual participants.

For the majority of behaviors, there was not a large difference in definitions between gay, lesbian, and bisexual participants. Disparities hovered around 5% for 20 of the 27 sexual behaviors items. Two of the items showed a 10% difference; however, this trend likely had less to do with attitudinal diversity than the smaller sample size in the gay or lesbian orientation category. This lability within the gay and lesbian sample was most noticeable in the “with orgasm” and “no orgasm” items, as a change in a few participants’ definitions caused a large shift in endorsement. However, the remaining five items did show a larger difference in definition of sex across the orgasm variable. Bisexual participants had between a 10% and 13% higher inclusion rate for manual stimulation, and a 23% higher rate for “masturbating in each other’s presence.”

Table 3.1. Items of a higher definitional inclusion rate among bisexual participants

| Behavior | | Heterosexual | Gay/Lesbian | Bisexual |
|---|-------------|--------------|-------------|----------|
| The person touched your genitals* | with orgasm | 22.3% | 53.3% | 62.2% |
| | no orgasm | 13.8% | 33.3% | 46.2% |
| Touching the person’s genitals* | with orgasm | 22.3% | 53.3% | 63% |
| | no orgasm | 13.8% | 33.3% | 45.3% |
| Masturbating to orgasm in each other’s presence* | with orgasm | 16% | 24.1% | 47.1% |

3.2.1. *orgasm variable*

As with the gender findings, the orgasm variable proved to be an important factor. Oftentimes, there were large gaps in definitional inclusion for gays and lesbians when it came to having an orgasm or not; however, as mentioned previously, there were fewer participants who identified as gay or lesbian, thus giving a highly variable nature to the orgasm variable. However, the same labile trend was found in bisexual individuals, who were much larger in number.

4. Discussion

This study revealed many important findings, including gender differences in views of oral sex and strong agreement among all participants that anal sex is considered to be sex. In addition, broader definitions of sex were found to be more likely among females and sexual minorities, and the presence of orgasm emerged as a significant variable in deciding whether to label a particular behavior as sex.

While the percentage of males who do not consider giving or receiving oral sex as having sex is consistent with past research, the female percentage was much higher than in previous studies.³¹² This could be a result of including sexual minority female participants in the research, most of who included oral-genital sex in their definition of having sex. Females placing more importance on oral sex could also be influenced by the very nature of the act itself. Many females cannot have orgasms from vaginal penetration alone; oral sex could provide more consistent orgasms for females because it involves clitoral stimulation rather than penetrative sensation.¹¹

In terms of broadness of definition, previous research has typically hypothesized that males have broader definitions of sex than females. It was conjectured that males would include more behaviors in their definition of sex in order to increase their total number of sexual partners, perhaps because traditional gender norms encourage greater sexual activity in males than females.^{12,13} More recent investigators, finding equally broad definitions between genders, suggested that this effect was diminishing. The present study found, however, that females consistently had a broader definition of sex than males, consistent with the findings of Trotter and Alderson.² It could be that the present sample was very unique in makeup. Drawing from online communities that may have a focus on sex, sexuality, and gender issues could have produced a sample that was more open and less affected by sexual stigma than the general public. It could also be that online anonymity engendered more honest responses from female participants, who did not feel consciously or subconsciously pressured to answer in a certain way.⁸ If this were the case, perhaps females are resisting the sexual double standard and disregarding the stigma attached to this belief.

Alternatively, the presence of a sizable number of sexual minority participants could be influencing the finding of broader definitions of sex among females. Compared to heterosexuals, sexual minority participants viewed sex as comprising a broader number of behaviors. Because nearly a third of the sample was gay, lesbian, or bisexual, and nearly two thirds of the sample was female, comparison with previous samples is problematic.

This sample also showed a much higher endorsement of anal sex as having sex. While previously, anal sex was only included in sex definitions between 65-87% of the time, anal sex was perceived as sex by 90-100% of respondents in this study.^{10,37,52} This increase has positive implications for the field of public health, as recognition of anal sex as sex may encourage greater protective behaviors.

To further analyze the data from a public health standpoint, it is curious to note the importance of an orgasm in defining behaviors as sex. While an orgasm may be the societal marker for a “successful” sexual interaction, it sometimes makes no difference when it comes to sexual transmitted infections. Sexual fluids from either partner can be swapped without ever having an orgasm; sometimes just contact with mucosal surfaces can transmit infection. If young adults are basing their number of sexual partners based on “legitimate” or “successful” sexual interactions, their self-reporting in health clinics may be medically flawed. This is especially pertinent for behaviors such as oral sex, which had lower endorsement rates among participants, but still involves fluid transfer or skin contact.

The inclusion of ASBs in this study (see Table 1) has captured aspects of sexual behavior that have previously gone uninvestigated in sex definitional research. The ASBs achieved the initial goal of making the list of sexual behaviors more inclusive for all orientations, and proved to be a significant part of gay, lesbian, and bisexual definitions of sex. However, these behaviors also captured a side of heterosexual behavior; some of the ASBs had higher inclusion rates among heterosexuals than previously studied behaviors, like manual stimulation and masturbating in each other’s presence. It can be conjectured that the ASBs do not just capture aspects of sexual minority behavior; they also give light to a larger, more modern sexual population.

4.1 Online Sample Collection

Using online sampling provided a more diverse sample than if paper surveys were the sole means of data collection. The sample had a large number of bisexual participants, most of who were recruited online. This size is not unprecedented, however. The Pew Research Center published a study in June of 2013 detailing the lives and opinions of LGBT Americans. The researchers also used an online sampling method, and 40% of their sample identified as bisexual.⁸ It is difficult to determine if this high percentage of bisexuals is close to the actual percentage of bisexuals in the LGBTQIA community. Many bisexual individuals have remained hidden within the community and public at large, in part due to previous marginalization within the LGBTQIA community.¹⁴ Bisexuals are also much less public about their orientation; 77% of gay men and 71% of lesbian women report being open about their orientation with most or all of the important figures in their lives, as compared to only 28% of bisexuals.⁸ This hidden identity may prompt bisexuals to seek advice and support from online communities. By possibly having a larger presence in online communities, bisexuals would have a larger response to online research.

As useful as online research is for gathering large and diverse amounts of data, it also presented challenges. Over 1,000 participants completed at least part of the online survey, but most had to be excluded from the final sample because they did not complete at least 50% of the survey. Additionally, some participants did not pay attention to the age restrictions, resulting in data from underage participants, all of which were discarded. Finally, the success of online postings greatly affected the visibility of the survey. In online communities where website content is voted upon by users, posts are screened until they are deemed relevant, interesting, or important by a significant number of community members. If the post was not popular within one to two hours, it remained invisible to the community,

thereby preventing possible respondents from participating. The post to the LGBT community of reddit.com was not popular enough to be brought to the front page of the community, thus limiting possible participants' access to the survey.

Despite these drawbacks, online sampling proved to be a viable means of data collection. The surveys yielded a relatively high number of participants and allowed for voices from various locations in the U.S. and Canada that would have been unreachable by in-person contact.

4.2 Limitations

There were several limitations that could have affected the results of this research. The option for "not applicable" on the sexual behaviors table was described as the category to choose when a behavior was anatomically impossible for the participant to take part in. For example, male-bodied participants should have selected "not applicable" for any behavior that involved the participant having a vagina (i.e. "the person penetrated your vagina with a sex toy"). However, the percentage of males who endorsed "not applicable" for this behavior was much smaller than the overall percentage of males in the survey, indicating that they did not understand the instructions. In other cases, participants selected "not applicable" for behaviors that involved anatomy of all genders, such as the anus. Participants perhaps mistook "not applicable" to mean that they have not had or do not wish to partake in this kind of behavior. More specific directions explaining this category should be included in future research.

There were also some discrepancies between the paper and the online version of this survey. Respondents who took the paper version of the survey had the possibility of circling more than one option for the demographics section, despite directions to choose one. This actually gave a better idea of the participant's gender and sexual orientation. The online respondents had no such option, thus limiting their ways of identification. Various participants suggested that there be a more open way of responding to demographics, especially in regards to orientation. The third variable that measured orientation, a question asking about the participant's object(s) of attraction, only allowed for one option to be chosen. Individuals who felt attraction to more than one of these options were forced to choose only one, which did not provide the complete picture of their sexuality.

Some participants also requested other orientation options in the demographic section, as indicated by their written responses. For example, some individuals suggested the addition of "pansexual" to the list of possible orientations. While similar to bisexuality in terms of polysexuality (attraction to more than one gender), pansexuality differs from bisexuality in important ways. Pansexual individuals do not base their attraction on gender and assigned-sex characteristics, but instead on interpersonal factors like personality. Pansexuality therefore includes attraction to genderqueer or agender individuals because it does not take the gender binary into consideration.¹⁴ Additionally, participants requested the addition of an asexual option for the question asking about the participant's attraction. Because asexual individuals do not experience sexual attraction towards any gender identification, there needed to be an option that listed "not sexually attracted to anyone." Future researchers should include these additions in their demographic sections.

There were relatively few gay and lesbian individuals who were part of the final sample. As mentioned earlier, this low sample size contributed to highly variable responses that are not necessarily representative of the gay and lesbian population. Having to collapse gay and lesbian responses into one category also does not capture their unique sexual identities. Gay and lesbian individuals are often culturally grouped together because historically they were seen as "others" in comparison to heterosexuality. However, what they have in common in terms of sexual orientation is simply monosexuality, or experiencing attraction to one gender. Along these lines, it would be just as logical to group gay and lesbian individuals with heterosexual participants. However, this fails to capture the unique aspects of each group's community and history. Future research should strive to have large enough numbers of both gay and lesbian participants to warrant a separation in categorization. Similarly, more gender minority participants should be included in future sex definitional research.

4.5 Implications

This research has expanded upon both the knowledge and the methods concerning sex definitional research. It has shown positive implications for public health regarding anal sexual behavior, but also areas that might still be of concern. It has broadened our understanding of human sexuality by including sexual minority voices and additional sexual behaviors, but has also shown the challenges in doing so. Future research should incorporate gender and sexuality inclusivity in both their demographics and their measures, but should consider the challenges and quickly evolving nature of terminology and identification.

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6. Endnotes

1. Here and throughout, LGBTQIA stands for “Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, Intersex, and Asexual”