

Measuring Sex, Gender Identity, and Sexual Orientation

Research Recommendations

This issue brief is based on the report *Measuring Sex, Gender Identity, and Sexual Orientation*, which recommends that the National Institutes of Health adopt new practices for collecting data on sex, gender, and sexual orientation. The report recommends standardized language to be used in survey questions that ask about a respondent's sex, gender identity, and sexual orientation. While the quality of these recommended measures has been well established, this issue brief outlines a number of areas of further research that could improve them.

IMPROVING CONCEPTUAL ACCURACY

Sexual Orientation

The recommended measure of sexual orientation, outlined in the issue brief *Measuring Sexual Orientation Identity*, includes a response option for those who do not identify as a sexual minority. This category is labeled as “Straight, that is, not gay or lesbian,” and it is the second response option offered, following “gay or lesbian.” This response option is both negating of gay and lesbian identities—by defining heterosexuality or straightness in terms of what it is not rather than what it is—and conceptually inaccurate because it fails to acknowledge the existence of other sexual orientation identities, such as bisexual, Two-Spirit, or pansexual. This language was developed during a time period in which the general population was less familiar with

the terminology used to identify sexual orientation identities. Additional research that (1) assesses whether the clarification regarding the meaning of “straight” improves respondent comprehension and (2) identifies alternative non-negating language is needed.

Gender Identity and Transgender Experience

The recommended two-step measure, outlined in the issue brief *Measuring Gender Identity and Transgender Experience*, which first asks for sex assigned at birth and then gender identity, also has conceptual limitations that merit further research. The first concern is that the measure of gender identity includes the response category “transgender”; however, transgender individuals may identify with a binary gender and a transgender identity. Thus, the inclusion of “transgender” as a response option can create a “forced choice” for this population in which they must decide between endorsing a gender identity that is based on current gender or based on their transgender experience. In the recommended question, “transgender” is the only gender identity response option provided that lies outside the gender binary—although respondents can also use the free text response option to list other identities. Additional research is needed to assess the effects of including one or more response options that identify those who identify themselves outside the gender binary,

such as “nonbinary,” either in addition to or instead of “transgender,” and the effects of allowing respondents to select more than one gender identity response. In addition, this research should consider the relationship between nonbinary gender identities and transgender experience and cisgender status.

The second concern focuses on the differences between sex and gender terminology. The terms “male” and “female” are used to refer to sex, while the terms “man,” “woman,” “girl,” and “boy” are used to refer to gender. In the recommended two-step measure, the response options for both sex assigned at birth and gender identity use sex terminology: “male” and “female.” The use of sex terminology to refer to gender is conceptually inaccurate; however, doing so could potentially reduce response burden and the number of respondents who are inaccurately coded as transgender based on reporting a different sex assigned at birth and gender identity. More research is needed to assess whether using gender terms for gender identity—rather than sex terms—affects data quality.

Intersex or Differences in Sex Development

As discussed in greater detail in the issue brief *Measuring Intersex Status or Differences in Sex Development*, historically, those with intersex traits or differences in sex development (DSD) have been assigned either “male” or “female” sex on their original birth certificate. For this reason, the recommended measure of sex assigned at birth allows only two responses: “female” and “male.” However, the combination of recent changes in the medical treatment of infants with ambiguous sex traits and legal changes to birth certificates within a number of states have opened the possibility that an infant may be assigned a nonbinary sex at birth on their original birth certificate. As such a designation becomes more common, further research will be required to assess the need for a “nonbinary” response option for sex assigned at birth, as well as how the inclusion of this option affects assessments of transgender experience using the two-step method.

ADAPTING RESPONSE OPTIONS TO REFLECT CURRENT

TERMINOLOGY

Terminology that is used to identify and describe both sexual orientation and gender identities is currently in flux. The response options included in the recommended measures for sexual orientation and gender identity were developed and tested over many years and may not reflect these recent changes. Although both measures include a free text option that allows respondents who do not identify with the existing response options to record their identity, additional research is needed to assess the inclusion of additional response options that may be prevalent within LGBTQI+ populations. These may improve data quality and reduce the need to process free text responses.

Sexual orientation identities that allow for identification of self or partners outside the gender binary (e.g., “queer” or “pansexual”) or indicate uncertainty about one’s sexuality (e.g., “questioning”) or are specific to certain populations (e.g., “same gender loving” within African American communities) should be assessed for inclusion as potential response options. Similarly, terminology referencing gender identities that lie outside of the gender binary, such as “nonbinary” or “genderqueer,” remains fluid. Furthermore, there is evidence that a significant percentage of those with intersex traits or DSDs identify “intersex” as a component of their gender identity. Periodic reevaluation of free text responses may provide additional insight into how these responses change over time and may vary in different settings and suggest additional changes to the listed response options.

CHANGES TO QUESTION ADMINISTRATION

There are a number of areas in which further testing could potentially improve the performance and expand the use of the recommended measures for collecting data on sex, gender identity, and sexual orientation. Each of the recommended measures was designed to allow respondents to self-report their identity or status; however, in many data collection contexts, respondents may be asked to proxy report on behalf of another individual, such as when a parent reports on behalf of

their child or a single member of a household reports for all household members. Additional testing is needed to assess the quality of such proxy reports for sexual orientation, the two-step gender identity measure, and intersex/DSD status.

Sexual Orientation

The list of response options begins with “gay or lesbian,” which is followed by “straight, that is, not gay or lesbian,” “bisexual,” “Two-Spirit,” and “I prefer another term.” This order does not follow a conventional method of ordering response options, such as listing them in alphabetical order, by population prevalence, or randomized order. It is based on the need to maintain the logical ordering of the first two options, which improves comprehension of the “straight” response option. If further research suggests that the additional explanatory text is no longer needed, additional changes to the response option ordering may be needed.

Gender Identity and Transgender Experience

The recommended two-step measure asks respondents to first report their sex assigned at birth, and then report their current gender identity. This ordering is chronological and is the most commonly implemented order of the two questions. However, there is evidence that some transgender respondents find questions about sex assigned at birth to be invasive and that asking for sex assigned at birth first implies that this measure is of greater importance than current gender identity. Thus, first asking for sex assigned at birth could increase item nonresponse and reduce the performance of the two-step measure within this population. Further research on question ordering is needed to assess whether changing the order of the questions affects the performance of the two-step measure.

The percentage of the population that is transgender is small. This means that even a small number of “false positive” responses in which a respondent erroneously reports their gender identity as either transgender or different from their sex assigned at birth can have an outsized impact on estimates for the transgender population. To reduce the impact of these false positive cases, a number of surveys have included a confirmation

question that is asked of any respondent whose responses to the two-step indicate they have transgender experience. However, doing so increases the response burden solely on this population and can be interpreted as invalidating their experience. Thus, more research is needed regarding the need for and effect of including such a confirmation question.

EXPANDING BEYOND ADULT ENGLISH-SPEAKING POPULATIONS

The report focused on recommending measures that have been tested and can be used within the adult English-speaking population of the United States. Spanish-language translations of the sexual orientation identity measure have been tested, and these tests have identified important differences in familiarity with terminology. Additional research is needed to assess the performance of translations of this measure and the two-step gender identity measure into Spanish and other non-English languages.

Although the recommended sexual orientation identity and two-step measures have been tested in populations as young as 12 years old, more research is needed to identify best practices for assessing sexual orientation and gender identity within youth populations, including the appropriate age(s) at which these questions can begin to be asked. Recent estimates have shown that young adults and youth respondents are more likely to identify as a sexual or gender minority than those who are older. They may also be more likely to express uncertainty about their sexual and gender identities. For these reasons, it may be important to include additional response options that reflect this uncertainty (e.g., “questioning”) as well as a wider range of sexual and gender identities (e.g., “pansexual”) when collecting data within youth populations. Moreover, additional research should address whether sexual and gender identity measures are the most effective dimensions of sexual orientation and gender to track when assessing disparities in well-being within youth populations.

ALTERNATIVES TO THE RECOMMENDED MEASURES

Sexual Orientation

The report focuses on developing recommendations for the measurement of sexual orientation identity; however, this is only one dimension of the broader concept of sexual orientation. Further research is needed to develop guidelines for the measurement of the other dimensions of sexual orientation: attraction and behavior. In particular, standards for assessing asexuality should be developed and tested.

Gender Identity and Transgender Experience

As noted above, data collection on sex assigned at birth is sometimes seen as being invasive or invalidating of an individual's current gender identity. In addition, within contexts where privacy and confidentiality cannot be assured, revealing this information could put individuals at risk of mistreatment. In many of these circumstances, specific information regarding an individual's sex assigned at birth is not needed, but identifying transgender people for the purposes of service delivery or monitoring disparities is still desirable. The identification of alternative two-step measures that can offer an inclusive count of both cisgender and

transgender individuals without relying on sex assigned at birth could potentially improve data collection efforts in these circumstances.

Intersex or Differences in Sex Development

As noted in the issue brief *Measuring Intersex Status or Differences in Sex Development*, very little research has been conducted on the measurement of intersex status and the use of a standalone measure to identify this population, therefore this is a fruitful area for further research. Although the brief identified one measure as having greater evidentiary support because it had been tested within a sample of intersex/DSD respondents, the report also noted that based on expert opinion and the limited evidence currently available, two other measures could also be considered. The three questions varied in terms of their length, complexity, and language used to describe this population. Additional research that directly compares the performance of these three measures and assesses the effects of the use of different terminology (e.g., "intersex," "differences in sex development," or "variations in sex development") and the inclusion of definitions of terms within the question text, as supplemental text, or as interviewer prompts is needed.

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FOR MORE INFORMATION

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