



COLLABORATIVE OF
**GENDER & SEXUAL
HEALTH EQUITY**

RESEARCH EDUCATION RESOURCES

Gender & Sex in Methods & Measurement

Research Equity Toolkit

*Tool #6: Working with Pre-Existing,
Secondary & Older Data*



THE UNIVERSITY
OF BRITISH COLUMBIA

Introduction

Pre-existing data tends to be more readily available than primary data, and its use can save time and resources that might otherwise be spent by individual researchers on new data collection activities. However, working with pre-existing data is not without its challenges. We inherit data that may not have been generated in line with our current understandings of recommended, inclusive, and precise measurement and data collection practices.

This tool addresses challenges that can arise when working with pre-existing data, especially where those data have identifiable shortcomings in how they handle the complexity of gender, sex, and sexuality variables.

This tool concerns itself with two types of pre-existing data: secondary data and older data.

Secondary data

As researchers, we often work with data that we ourselves collected – we design the measures and instruments to be used for data collection, and we are responsible for collecting data directly from participants for our specific research study. However, this is not always the case. Many of us work with secondary data – data that were collected by someone else through primary sources, and then made available for use by researchers and others later.

Structured secondary data is organized and collected in a predetermined manner; it is considered easy to query, filter, sort, and aggregate. It may come from national censuses, administrative data sources (e.g., electronic health records; health insurance claims), or health registries and databases. Unstructured secondary data is not organized in a predefined manner; it can include social media posts, blog articles, news items, videos, images and more.

When conducting scoping reviews, systematic reviews, and meta-analyses, we extract, combine, and analyze data from different, previously published studies. The data used in these reviews is considered secondary data, since it was not collected firsthand, and instead was collected by someone else for their own purposes.



Older data

Rather than secondary data from outside our research groups or labs, we might inherit pre-existing, older data from:

- a. our supervisors – where trainees may work with data collected prior to their admission to their degree programme;
- b. predecessors – if we take over the management of a dataset that was developed before our arrival;
- c. our past selves – sometimes we work with pre-existing, older data generated by generated on previous studies or in years past.

[Tool #5 on Methodological Responsiveness Across Time](#) can offer additional insight into working with these data.

Assessing limitations

When working with pre-existing data, it is important that we foster the skills to assess the severity of limitations. In general, a *limitation* means that the data may have some inaccuracies or gaps, but that they can still be used for certain purposes with appropriate consideration of, and transparency around, those limitations. It is vital that researchers can assess the degree to which limitations make the data unreliable or otherwise unusable. Determining the severity of a limitation depends on the specific context and purpose of the data. For example, the conflation of gender with sex, the use of only binary measures of gender and/or sex, and the exclusion of intersex, trans and Two-Spirit people from research, may all represent fatal flaws. However, these issues are so pervasive, that it is not always practical or feasible to discard data that replicate these common issues – particularly if they are the only available data sources. In this case, these issues may need to be treated as limitations instead. There are two ways of acknowledging and addressing these limitations: transparency and accountability.

1. Transparency – We should try to examine and correct shortcomings associated with pre-existing data, rather than pretending that no such issues exist. The more people do not admit to, expose, and address shortcomings in data, the more entrenched those shortcomings become. Transparency might involve coming up with language to describe what was ultimately measured, rather than describing a variable simply and unproblematically.

If a primary data source conflates gender and sex, for example, it would be inappropriate to uncritically call that variable gender or sex in your own secondary writing – how can you be sure that one was measured, rather than the other, or that the variable is not more accurately described as some combination of the two? Rather than trying to make neat something that is ultimately messy, transparency involves acknowledging and revealing the messiness. This is important for the sake of reliability in our own individual analyses, and as a strategy for rectifying errors and avoiding their replication in the future.

2. Accountability – No research or data are without flaws, biases, assumptions, and limitations. Researchers who make use of pre-existing, secondary and/or older data, can provide detailed acknowledgments of how they recognize and/or attempted to mitigate the limitations in those data. If we are generating data that others will use, we need to be amenable to constructive critique and willing to be accountable by updating our data collection methods and measures for future studies. Whether you are making your raw data available alongside your publications, setting up a database or dataset that others will be able to use, or simply in anticipation of your findings being compiled as part of a scoping or systematic review, it's important to remember that your primary data may become someone else's secondary data.



Data collection limitations

A common issue when working with pre-existing, secondary data is an opacity regarding how those data were collected in the first place – where there is no transparency around methods and measures for ascertaining participant or respondent gender, sex or sexuality, or where reported strategies are less than ideal.

Scenario

Otto Jakumeit is a postdoctoral research fellow whose work explores the relationship between sexual health care utilization and weight stigma and bias. Because of other research about weight stigma and health care access, they hypothesize that respondents to the Phoney National Health Care Survey who reported higher body mass indexes would also report lower rates of sexual health care utilization. Jakumeit notes that BMI is an inaccurate and misleading measure, but that in this case, it is the only data that the Phoney National Health Care Survey collected that might be a proxy for weight stigma. Their analysis of the survey found a statistically significant negative correlation between these two variables. They intend to examine a variety of covariates, to see whether this negative correlation continues to hold true when comparing respondents of different genders, race/ethnicities, ages, immigration statuses, etc.

Jakumeit examines the survey instrument and protocol notes used by the Phoney National Health Care Survey. They discover that, while respondents were asked about most aspects of their identities outright, the telephone interviewers who collected these data were instructed to determine for themselves the genders of participants. Telephone interviewers were told to use the sound of the respondent's voice, discussions of parenting or partnership role, or other disclosures to ascertain whether the respondents were men or women. The telephone interviewers also asked each respondent, as a representative of their household, to share the genders of the other people they live with.

Jakumeit is concerned that based on this data collection method, that the gender variable in the Phoney National Health Care Survey is not reliable. Firstly, because it classifies respondents based on a binary understanding of gender categorization. Secondly, because interviewers were ostensibly guessing at respondents' genders using a variety of proxies. Finally, respondents were responsible for reporting on the genders of others in their household, which may have resulted in inaccuracies in the data.

Jakumeit is aware that dozens, if not hundreds of manuscripts have been published using data from the Phoney National Health Care Survey, including many that involve gender identity-based analyses. They do not find an acknowledgement of the assumptions and limitations associated with this data collection strategy anywhere in the literature.

Consider

Jakumeit is not sure how to proceed. Should they eliminate gender from their list of covariables? Can they analyze and report on the gender variable in a way that acknowledges and draws attention to their concerns about how these data were collected, and thus limitations associated with how they can be interpreted?

Decision

Determining the severity of a methodological or measurement limitation is a matter of context. Jakumeit does not have access to any other population-level data that would allow them to test their hypothesis and, despite the issues associated with this data collection strategy, they contend that the data are still usable. They decide to describe all respondents' genders as, "interviewer-reported gender," and all other household members' genders as, "gender reported by primary household member." They decide that these descriptors are the most precise labeling for the gender variables based on the data collection strategy that was used, and they provide a rationale for their labels in a footnote in each of the manuscripts they publish.

At a national conference on health inequities, Jakumeit shares their concerns about this data collection strategy during a panel discussion with other health researchers, wherein they also share their strategy for labeling these data accurately. Their colleagues commit to using similar language in their own forthcoming publications and presentations, and they decide to collaborate on a letter to the administrators of Phoney National Health Care Survey, to express their collective concern about this data collection strategy.

Remember

Acknowledging and attending to shortcomings and limitations in secondary data, whether regarding data collection methods or the measures that were used, is important. Rather than perpetuating errors, we have an opportunity to draw attention to those errors, and conduct our secondary analyses in ways that demonstrate how we navigated the shortcomings and the impacts of those decisions on our results, discussion and interpretation of data.

On scoping reviews, systematic reviews & meta analyses as secondary research

Scoping reviews, systematic reviews and meta-analyses are research based on other research. They use data from existing research studies and try to answer a research question by synthesizing available evidence, and by evaluating the quality of that evidence. As Runnels et al. (2014) have demonstrated, however, there are challenges associated with sex- and gender-based analysis within systematic reviews, including conceptual challenges (defining sex and gender), methodological challenges (measuring and analyzing sex and gender), as well as challenges associated with availability and quality of data.

Scenario

A research team at the Centre for Applied Research into Things and Stuff (CARTS) are conducting a systematic review, examining the prevalence of reproductive coercion among adolescents in the United States. Reproductive coercion is when a person exerts control and power over another person's reproductive health and decisions, and the most common forms include pregnancy pressure, abortion pressure, and sabotage of contraceptive methods. CARTS develops a PICO framework appropriate for their study – identify the Population, Intervention, Control and Outcome elements of their research question, to develop article inclusion and exclusion criteria. They get to work first doing title and abstract screening, and then full-text screening of articles that meet their inclusion criteria. As they begin work on data extraction, they are confronted by unanticipated challenges.

First, they notice that over 75% of the studies make no mention of how they collected the gender and sex information from participants. While participants' genders and/or sexes are reported, the research team cannot ascertain whether a survey, interview question, other self-reported mechanism or even researcher's guess work was the method used to collect data, which were then coded and aggregated in some way. While the remaining 25% did describe their data collection method, many of these were flawed, for example by only offering binary options for sex without an acknowledgment of intersex people or by asking participants for their genders but offering only male or female (binary sex terms) as response options.

Second, the research team makes note of issues associated with how studies attended to gender and sex more broadly. Some studies used cisnormative eligibility criteria (e.g., where only cis girls were recruited for a study focused on unintended pregnancy). Other studies assumed that survivors of reproductive coercion were cis women, and that perpetrators were cis men – they did not consider both survivors and perpetrators can be people of all gender modalities and identities. Still others made room for trans people, but did so in less-than-ideal ways. For example, labeling participants as male, female or transgender conflates sex-specific terms and a gender modality concept. In this example, transgender is treated as analogous to male or female, when it is more accurately analogous to cisgender. It also treats trans people of all genders as a singular identity category, without differentiating trans people of different genders. This topic is explored in more depth in *Gender & Sex in Methods & Measurement Toolkit*, [Tool #4: Asking About & Measuring Participants' Genders & Sexes](#).

Consider

The research team will need to ascertain whether and how to conduct gender and/or sex-based analyses based on these data, including whether they can comment on the prevalence of reproductive coercion among youth of different genders due to the limitations associated with the articles in their review.

Decision

The research team at the CARTS decides to proceed with their systematic review. They dedicate a multi-page section of their analysis on the need for accuracy, precision, and inclusion when it comes to sociodemographic measurement in research focused on reproductive coercion. They do their best to analyze and interpret the data in the included articles, while drawing attention to areas of improvement that facilitate smoother systematic analyses and are required to address the pressing issue of reproductive coercion among adolescents. They make a note that the lack of statistical power to detect gender- and/or sex-related differences in prevalence does not mean that those differences do not exist. They argue that interventions that both prevent reproductive coercion and support survivors of this violence will be effective only in so far as they attend to the unique and specific genders, sexualities, race/ethnicities, ages, disabilities, etc., of individual youth. Doing so, they reason, requires better methods and measurements by researchers who are generating evidence and data on this topic.

Remember

An important feature of systematic reviews and meta-analyses is commenting on the quality of available evidence. That the literature fails to report on sociodemographic data collection methods and the misuse of gender and sex concepts represent two noteworthy findings. Whether through a primary data source, or the published results from other studies, we may inherit data that contains noteworthy limitations. While systematic reviews would certainly be more straightforward if data collection methods and sociodemographic measures were standardized, it is unclear whether such standardization is possible, or even desirable, considering varying contexts within which research is conducted.

Spotlight

Recognizing that data is often shared between health information systems, and that research is often done in ways that compare jurisdictions or countries, data standardization is a frequently cited as a strategy to facilitate both data sharing and comparative analysis. If all researchers, governments, health authorities and others who collect and share data did so in the same way across the world, it would indeed be more straightforward to conduct analyses of these data. However, standardization across language, culture, and geopolitical context is not a straightforward process, especially in light of the moving target of recommended practices (See [Tool #5 Methodological Responsiveness Across Time](#) for discussion on this topic) and that gender, sex, and sexuality can be constituted in local ways that are not themselves standard across time and place.

For example, Logical Observation Identifiers Names and Codes (LOINC) was initiated in 1994, to develop common terminology for laboratory and clinical observations. It now provides universal codes and names that follow an, “international standard for identifying health measurements, observations and documents.” The goal of LOINC is standardization and the removal of ambiguity to facilitate the exchange and aggregation of results, outcomes, and research efforts. They have produced a catalog of language that can be used in laboratory testing, clinical measures like vital signs, and standardized survey instruments. Additionally, SNOMED International owns, administers, and develops SNOMED CT, which is considered the world’s most comprehensive clinical terminology database, with the goal of global standards for health terminology.

LOINC and SNOMED CT work together – LOINC provides a code for a particular aspect of health or patient identities, which is then coupled with SNOMED CT terminology to further explain or expand on that code. However, the goal of standardization is rendered difficult by misuse of concepts within LOINC and SNOMED CT.

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For example, LOINC has a code for gender identity (76691-5) which is defined appropriately as, “an individual’s personal sense of being a man, woman, or other gender, regardless of the sex that person was assigned at birth.” Then, the related SNOMED CT terminology that captures gender identity conflates gender and sex, by listing LA28878-5 as the code for, “identities as male gender” and LA28879-3 as the code for, “identities as female gender,” where importantly, female and male are not genders. It also provides codes for female-to-male transsexual (LA22880-1) and male-to-female transsexual (LA22881-9), which is outdated, binary, and medicalized terminology. This coding system also codifies trans people as separate from people who identify as men and women (erroneously labeled as male and female), without explicitly naming the first two codes as being exclusively for cis people.

In this way, the intention of gender identity health information system standardization is rendered complicated by standardization approaches which conflate and confuse gender and sex, and which use outdated, binary, and medicalized language to refer to trans people. Standardization has its advantages, but is only achievable with careful, ongoing attention to the ever-changing and sometimes culturally specific framings of certain concepts. Whether standardization of measures related to gender, sex and/or sexuality is possible and practical remains to be seen.

Gender & sex misuse in administrative data

Administrative data includes records collected by governments, private sector organizations, commercial entities, insurance companies and others as part of their ongoing operations, often for non-statistical reasons. These administrative data may themselves misuse gender and sex concepts. Secondary analysis of these data may further contribute to that misuse. For example, administrative data that classifies people with regards to sex are often thereafter used to conduct gender-based analysis based on the cisnormative assumption that all female people are necessarily women, and all male people are necessarily men. Not only should we carefully and precisely attend to gender and sex concepts in the primary collection of these data, but we should endeavour to avoid gender and sex conflation in secondary analyses.

Scenario

Dr. Don Datos is a long-standing peer reviewer for the *Journal of Administrative Antics and Social Science Shenanigans*. He is reviewing an article that used administrative data to examine rates of intimate partner violence, rape, and sexual violence in three countries. In Country A, the administrative data reported on participants' genders as male and female. In Country B, the administrative data reported on participants' genders as men, women, and nonbinary. In Country C, the administrative data reported on participants' sexes as male and female. In the manuscript analysis, the authors use the language of gender for all participants, saying that they used gender-disaggregated data to calculate prevalence rates among men and women in the three countries. Their article is framed as a gender-based analysis. Dr. Datos is concerned about this approach. He does not want to put forward for publication the manuscript as written, as the authors do not acknowledge the shortcomings and limitations associated with the primary data, and uncritically describe their analysis as being about gender, and more specifically about men and women.

Consider

Dr. Datos will need to ascertain whether the authors should be given an opportunity to address this conceptualization, framing and reporting issue. He knows that the authors are not responsible for the lack of standardization and misuse of gender and sex concepts in each of the three countries where the primary data was collected – the authors inherited data that misuses these concepts. However, Dr. Datos does not want to see an article published that reinforces this conflation and confusion.



Decision

Dr. Datos writes in the peer review that the article can be published with minor revisions, provided that the authors attend to this conceptual conflation, and use different, more precise language in describing the participants, their analytical approach, and the impacts of their findings on people of different sexes, gender identities and/or gender modalities, as appropriate. Dr. Datos' review also makes note that the authors' exclusion of nonbinary people from their gender-based analysis would need to be explicitly justified.

Remember

When we are working with administrative data, from a single source or doing comparative analysis across multiple sources, we might inherit data that misuses gender and sex concepts. Researchers are encouraged to be transparent about limitations associated with those data, rather than replicating those errors in their own analyses and interpretations. In the above case, the reviewer could request that the authors note that data were collected in ways that confuse and conflate gender and sex such that the participants in the three countries cannot be reliably described as exclusively male/female or men/women.

Spotlight

In British Columbia, many researchers use the Medical Services Plan (MSP) administrative database. These are data derived from provincial health insurance enrolment forms, which are then linked to physician and hospital encounters, and prescription drug claims under PharmaNet (British Columbia's provincial system for linking patient prescription data across the province). Researchers can access these data for the purposes of secondary analysis. Unfortunately, the MSP administrative database, and the enrolment form from which these data are collected, misuse gender and sex concepts.

In their 2023 article, Wiedmeyer et al. make use of MSP administrative data to investigate SARS testing and COVID-related primary care among participants of diverse citizenship, residency, and immigration statuses. These authors describe how, “the MSP registration form contains a variable labelled ‘Gender’ with the options ‘M’ and ‘F’ provided (presumed to be abbreviations of the sexes ‘male’ and ‘female’). We refer to this variable as ‘administrative sex’ and write ‘male’ and ‘female’ when describing this variable. Whether responses reflect gender, sex assigned at birth or legal sex cannot be determined” (Wiedmeyer et al. 2023, 392).

Lavergne et al. (2022) also make use of MSP administrative data in their study of primary care service use across time, by neighbourhood income. They describe how, “sex/gender is collected at time of MSP registration. The field is labeled ‘Gender’ on the registration form but only the options ‘M’ and ‘F’ are provided. It is not possible to distinguish between assigned sex, legal sex and gender based on this information, so we label this variable ‘sex/gender’” (Lavergne et al. 2022, 3).

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The authors thereby draw attention to the conflation of gender and sex in the administrative data and develop labeling strategies that more precisely describe the variable of interest. For Wiedmeyer et al. (2023), the options of “F” and “M” suggested to them that the MSP data was ultimately most aptly described as a measurement of sex, which they label as ‘administrative sex,’ drawing attention to the fact that this is an administrative, rather than biomedical variable. For Lavergne et al. (2022), they refer to the variable as sex/gender, an amalgam of the two, due to the inability to ascertain whether gender or sex was being measured.

Both sets of authors point out that there is ambiguity in the variable, as it is ultimately not possible to ascertain whether gender identity, sex assignment, legal sex, or some combination of the three was captured by the MSP data. The current MSP enrolment form has added an X to the response options, but it still calls M, F and X ‘gender,’ despite displaying them on Service Cards as ‘sex’. This is arguably in line with legal gender recognition legislation and Vital Statistics protocols for updating gender markers – even though M, F and X are not gender identities, and recognizing that these letters are listed as an individual’s sex on resulting identity documents.

Rather than feigning neatness and clarity, these authors exposed the messiness of the administrative data, thus improving the reliability of their own analyses and interpretations, as well as transparently creating replicable strategies for other researchers who are similarly confronted by gender and sex misuse in secondary data in the future.

Peer review & scholarly communication skills as advocacy and scientific advancement

Part of the scientific process is peer review, where we provide critical evaluation of the work of others, to identify weaknesses, flaws, limitations (and strengths) of a research study, manuscript, or other output. The goal of peer review is to promote constructive dialogue, to encourage researchers to improve their work, and to move method, measurement, evidence, and science forward.

In addition to manuscript peer review, there are many other strategies for acknowledging, addressing, and rectifying methodological and measurement-related flaws, shortcomings, and limitations in our own data and work, and in the data that we use for secondary analysis.

Public-facing strategies might include writing letters to the editor, publishing opinion pieces and commentaries, or drawing attention to our own shortcomings with footnotes and limitations sections in manuscripts and presentations. Private strategies could include writing to an author, research centre, or primary data manager, and asking a question directly. Scholarly communication of these kinds are vital to ensuring that science is sound, and generated in ways that contribute to the advancement of knowledge in the field.



Acknowledging shortcomings of our own analyses & uses of secondary data

Brief footnotes and lengthier limitations section are a way of making visible research costs and benefits. Limitations exist everywhere, and writing up those limitations is demonstrative of a researcher's engagement with those shortcomings, rather than sweeping them under the rug. Importantly, limitations sections and footnotes are not only needed when it comes to describing data collection and measure-related issues associated with pre-existing, secondary and older data; they are a vital component of research humility, accountability, and transparency no matter the data source.

Footnote

A well-positioned footnote may be sufficient for identifying a limitation of data collection or measurement, or for explaining a choice that was made considering that limitation. Footnotes ensure that transparency is maintained, without unnecessarily distracting from the discussion that is underway in the main text. However, some journals do not permit footnotes. In these cases, the information may need to be moved to the main text.

Footnotes of this kind are most effective if they:

- a. acknowledge an error, shortcoming or limitation;
- b. briefly describe what was done to address it, in both the short- and long-term.

E.g., “In previous iterations of our survey, we inappropriately conflated gender and sex, by asking participants for their genders, but providing only binary, sex-based response options of male and female. As such, we describe this variable as gender/sex in this manuscript and have updated our survey measure so that future analyses will be able to more precisely and expansively describe this facet of participants' identities.”

Limitations section

For longer acknowledgements, a limitations section can be included. Limitations sections can give readers all the information that they need to evaluate the existing research, and around which to model their own research. A main text limitations section may be preferable to a footnote if:


- a. you need more than a few sentences to explain the shortcoming and how you handled it;
- b. footnotes are not permitted by the target journal;
- c. in-depth discussion is required to describe how the shortcoming or your method of addressing it impacted your results, findings, or interpretations;
- d. you are concerned that your acknowledgment of the shortcoming will be overlooked if contained in a footnote.

Researchers may experience push back on discussing limitations – peer reviewers may argue that some limitations are so large to as to constitute a fatal flaw, rendering the data unusable or the analysis faulty. One additional benefit of a limitation section, as compared to a brief footnote, is that authors can defensively pre-empt concerns about limitations by explaining in depth why the limitation is not a fatal flaw, articulate how they attempted to mitigate the limitations, and describe how they took the limitation into account in the analysis or interpretation of results, etc.

Limitation sections of this kind are most effective if they:

- a. acknowledge an error, shortcoming or limitation;
- b. describe what was done to address it, in both the short- and long-term;
- c. detail the implications of the error, shortcoming or limitation on the current analysis, including whether it has impacted potential interpretation or generalizability of the findings;
- d. include a call to action for how the issue could be addressed by those generating the data in the first place.





E.g., “Potential misclassification of gender/sex may also bias this study. Survey documentation instructs [Canadian Community Health Survey – CCHS] interviewers to input respondent sex and, if necessary, ask “is respondent male or female?” Though the term “sex” is used in the CCHS documentation, this variable is more accurately a gender/sex measure. The survey question does not collect sex assigned at birth and thus likely captures interviewer assessment of respondent gender/sex based on name, voice pitch, or other gendered signifiers. Though inconsistent with best practices in the literature regarding measurement of sex and gender, this item has been used to make both sex- and gender-related inferences in the CCHS. The binary male/female response options also constitute a methodological erasure of transgender respondents and/or those with non-binary identities—an important consideration both for future CCHS research and for Statistics Canada as the survey instrument evolves. Though the resulting potential for misclassification bias is an important limitation, this study used the best available CCHS gender/sex measure, and the number of any potentially misclassified respondents is likely small, as to have minimal impact on results. Despite oversimplification of gender/sex measurement, a meaningful gender/sex difference was detected in this study” (Rich et al. 2020, 13).

Identifying shortcomings in secondary data generation & use


Footnotes and limitations sections are particularly effective at explaining to readers what we personally did to attend to a shortcoming in our own analysis. However, in some cases it is prudent to communicate directly with an individual or research centre to ask for clarification about an issue, or to write a letter to the editor, that once published, would draw attention to a shortcoming that is being replicated in other published works.

Email

If a researcher is working with secondary data, or conducting a review of existing evidence, and they are confronted with a data collection or measurement quandary, they can try reaching out directly to the authors of a given paper. Email communications can:

- a. provide a researcher with answers to questions about how certain data were collected, or what measures were used;
- b. invite the recipient of the email to share unpublished insights in response to a specific question, including where those insights can later be referenced in future publications;
- c. serve as an intervention, where the recipient is provided with resources that might inform how they address a data collection or measurement issue in the future.

For example, a researcher might ask what methods were used to ascertain participants' gender identities and, in so doing, might be able to engage the recipient of their email in dialogue about the limitations associated with their stated approach, including encouraging the recipient to describe their method in future publications since it does not go without saying. Or a researcher might, in the spirit of collegiality, share information about alternative approaches to the measurement of gender identity, with an invitation to discuss that information and how it might impact the recipient's future work.



Importantly, emails are considered personal communications and can be referenced in publications (albeit not as citations, since they cannot be recovered by the reader). As such, a discussion that occurred via an email can be rendered public later. It is important to remember that not all recipients of these emails will be happy having their conversation paraphrased or quoted; one should also anticipate a range of responses to these communications, from the collegial to the defensive. It is important to approach these correspondences with care, and from a place of respectful dialogue and mutual learning, rather than as a strategy to discredit, shame or embarrass. Further, writing to primary data managers and administrators may help them in identifying current and historical data collection and measurement challenges, and encourage the creation of new approaches.

E.g., “My name is Joshua T. Beasley, and I am working on a systematic review that examines how gender impacts the uptake of lifestyle interventions for people who experience sexual pain. Your article (insert name here) provided a description of the participants in your study. However, you did not describe how you went about ascertaining the genders/sexes of the participants. I would greatly appreciate any clarity that you can provide regarding the method or measures that were used. Most researchers in sexology and related fields measure gender/sex as binary demographic variables, and often without reporting the specific measures used or without differentiating gender identity from sex assignment or from legal sex category. I hope that your response today, along with the responses of others who I am similarly contacting, will help me not only with this systematic review, but with illustrating how researchers in this field typically measure gender and/or sex. Your response will be greatly appreciated. Sincerely, Dr. Beasley.”

Letter-to-the-editor

Letters to the editor are a type of publication that provides a brief and concise message on a particular topic to the editor of a journal or newspaper. They are often used to address or comment on an article previously published in the same journal or to raise a new issue of relevance to the readership of the journal.

Letters to the editor are important because they offer a way for researchers to communicate their findings to a wider audience and stimulate debate within the scientific community. They can also serve to correct any factual inaccuracies or misinterpretations that may have arisen in previously published work. For example, a letter to the editor might be an appropriate milieu for identifying misuse of gender and sex concepts in a secondary data analysis, even if that misuse originates in the primary dataset. One of the major advantages of letters to the editor is their accessibility and brevity. They are typically short and to the point, making them easy to read and digest. This brevity allows for a more rapid publication process, which can be important in fields where timely communication of new findings is crucial.

E.g., “Morgan et al. appropriately include the absence of gender-based analyses as an important study limitation. The authors attribute this limitation to the data collection instruments used in their study's reference survey. Yet, we respectfully caution the authors against conflating binary measures of sex (e.g., female, male) with paired indicators of gender (e.g., woman, man), as is often presented throughout their results, and as we often see done in the wider literature related to SGM [Sexual and Gender Minority] health. This conflation is inaccurate and inadequate in that it fails to account for the realities of transgender people and intersex people, in addition to pertinent population-specific health disparities. Furthermore, improper attendance to sex/gender variables risks distorting the accuracy and utility of interpretations based on sexual orientation (e.g., through potential misclassification of transgender heterosexual adults as cisgender SM adults). As health researchers, acknowledging the constraints of relying on large-scale surveys that inadequately measure and/or (mis)report sex and gender is certainly a key “first step,” but we must go further to critically interrogate the ripple effects of this limitation—particularly, with regard to who is left out of research, why, and with what consequences. We must also call upon the stewards of these data sets to attend to concepts of sex and gender correctly and expansively. Doing so will better equip health researchers to more aptly delineate how today's critical public health problems, including those related to opioid use and mental illness, may differentially impact SGM adults” (Goodyear et al. 2021, 240).



Additional reading

This list includes both additional recommended readings and items that were cited in this tool.

- Adisso, É. L., Zomahoun, H. T. V., Gogovor, A., & Légaré, F. (2020). Sex and gender considerations in implementation interventions to promote shared decision making: A secondary analysis of a Cochrane systematic review. *PLoS One*, *15* (10), e0240371.
- Bauer G. R. (2023). Sex and gender multidimensionality in epidemiologic research. *American Journal of Epidemiology*, *192* (1), 122-132.
- Burgess, C., Kauth, M. R., Klemm, C., Shanwani, H., & Shipherd, J. C. (2019). Evolving sex and gender in electronic health records. *Federal Practitioner*, *36* (6), 271-277.
- Cruz, T. M., & Paine, E. A. (2021). Capturing patients, missing inequities: Data standardization on sexual orientation and gender identity across unequal clinical contexts. *Social Science & Medicine*, *285*, 114295.
- Garvey, J. C., Hart, J., Metcalfe, A. S., & Fellabaum-Toston, J. (2019). Methodological troubles with gender and sex in higher education survey research. *The Review of Higher Education*, *43* (1), 1-24.
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