

Trans Research Ethics: Challenges and Recommendations for Change

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The field of research that includes transgender, nonbinary, and gender diverse (collectively, trans) people is expanding. In early research, trans people were often the objects of study. As trans studies evolves, community members are turning a critical eye to research practices. In this paper we join others in presenting a call for changes at each stage of the research process. Grounded in specific examples, nine core challenges are identified. Related to research focus and study design there are problems linked to: 1) centering a cisnormative world view, 2) conducting research not identified as a priority by trans communities, and 3) lack of accountability in research design decisions. Regarding data collection and analysis, concerns include: 4) reinforcing gender binaries, 5) collapsing gender and sexual

diversity, and 6) misrepresenting trans experiences through data manipulation. In terms of reporting and publishing practices, challenges are identified related to: 7) misgendering, 8) informational erasure in reporting research results, and 9) under-attention to complex informed consent dynamics. Linking the trans research ethics literature with concrete documentation of the ways researchers discuss and represent trans people and their personal information in peer-reviewed publications, this manuscript contributes to new dialogues about improving research processes with communities invested in accountability.

KEYWORDS research ethics; accountability; trans studies; research design; gender identity
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Research with transgender, nonbinary, and gender diverse (collectively, trans) participants is on the rise. As this field of research grows, tensions are also becoming more evident, including questions related to who has the right to conduct research with trans people, the extent of community collaboration, how to carry out ethical recruitment, the protection of participant confidentiality, and how trans people are represented in research findings (Adams et al. 2017; Bouman et al. 2018; Rosenberg and Tilley 2020; Veale 2022; Vincent 2018).

Several groups have started to develop guidelines to help researchers navigate potential ethical challenges in carrying out research with trans people and communicating their results. For example, the European Association for Transgender Health (EPATH) and the World Professional Association for Transgender Health (WPATH) outline recommended linguistic practices for abstract submission to their academic conferences (Bouman et al. 2017). These guidelines include a commitment to “respect, dignity, and equality for transgender, transsexual, and gender variant people in all cultural settings” (Bouman et al. 2017, 2), de-psychopathologization, and specific attention to avoid stigmatizing or pathologizing gender and bodily diversity, misgendering language, and reporting or advocating for clinical practices or interventions that are inconsistent with human rights. In addition, some of the recommendations move beyond discussion of language to address confidentiality, consent, and respect in relation to videos, photos, or other visual representations. WPATH guidelines specifically suggest that researchers should collaborate with trans individuals and communities with regard to selecting “language and terminology that is relevant and meaningful to a target population” (Bouman et al. 2017, 5). The Canadian Professional Association for Transgender Health (CPATH) released a similar set of national guidelines for research involving trans individuals and communities (Bauer et al. 2019).

These new guidelines echo calls for greater attention to sexual and gender diversity in study design, data collection and analysis, and research reporting. As this field evolves, many authors have focused on sampling and measurement, including the development of more inclusive questions and optimal question formats (e.g., Reisner et al. 2016; Saperstein and Westbrook 2021). Others have identified the need for more nuanced approaches to data analysis (Ansara and Hegarty 2014; Lett and Everhart 2022), improved attention to diversity within trans communities (Lett et al. 2022), insider/

outsider perspectives (Rosenberg and Tilley 2020; Vincent 2018), and research agendas (Hanssmann 2010; Veale et al. 2022).

In order to understand more about this field of research, our team developed an evidence map of trans research (Marshall et al. 2019). Evidence maps employ systematic review methodologies including systematic searches, screening references on title and abstract, and on full text, using pre-established inclusion and exclusion criteria (Miake-Lye et al. 2016). Each of these steps contributes to increased accountability, replicability, and transparency and this time-consuming process also ensures a full immersion in the data and the ways the research is presented.

One of the key objectives of the evidence map was to explore the behaviors of researchers who study trans individuals and communities, including what topics they tend to study and which research methods they employ. From an initial search that produced 25,230 references, 3,533 references were screened on full-text, including 1,667 studies that included trans people. While reviewing abstracts and articles on full-text, there were many examples of studies that did not seem to adhere to the core principles of research ethics including respect for persons, concern for welfare, and justice (CIHR, NSERC, SSHRC 2018). Linking literature about trans research ethics with concrete documentation of the ways researchers represent trans people in peer-reviewed publications, this manuscript contributes to new dialogues about empirical trans research ethics highlighting challenges and recommendations at each stage of the research process.

LANGUAGE AND TERMINOLOGY

The concept of gender modality introduced by Ashley (2022) describes, “the correspondence (or lack thereof) between a person’s gender identity and gender assigned at birth” (1). We use the term trans to refer to people whose gender identity and gender assigned at birth are not aligned. The term cisgender refers to people whose gender identity aligns with their birth assigned gender (Schilt and Westbrook 2009). In this paper, we have opted for a broad trans conceptualization (Chen 2018) that incorporates diverse gender identities, expressions, and modalities. This includes trans, nonbinary, and gender diverse people.

CHALLENGES AT ALL STAGES OF THE RESEARCH PROCESS

Difficulties accurately reflecting gender identity and expression can be seen at all stages of the research process. In the next three sections we highlight key concerns related to research focus and study design, data collection and analysis, and reporting and publication. Suggestions for addressing these concerns are included at the end of each section. Further reflection on recommendations is contained in the Discussion.

RESEARCH FOCUS AND STUDY DESIGN

Challenges related to research focus and study design include: 1) centering a cisnormative world view, 2) conducting research not identified as a priority by trans people, and 3) lack of accountability in research design decisions.

1) Centering a Cisnormative World View

A cisnormative world view assumes that everyone is cisgender and that variations from the norm do not exist (Ansara and Hegarty 2012; Bauer et al. 2009). From a cisnormative perspective, gender corresponds with the assignment made at birth, and does not change during the life course (Baril 2009). Cisnormative customs and societal structures reflect this belief system and center a “non-trans norm” (Pyne 2011). The existence of trans people, whose gender identities do not necessarily align with their birth assigned gender, challenges a cisnormative world view of sex and gender.

Grounded in cisnormative conceptualizations, psychiatrists, psychologists, and physicians function within a model that typically understands trans experience as a mental illness in need of treatment (MacKinnon 2018; Schwend 2020). Until recently, formal acknowledgment of trans people without pathologization was impossible. That is, in order to be recognized as trans and to gain access to medical transition, it was necessary to be diagnosed with Gender Identity Disorder (APA 1994) and subsequently Gender Dysphoria (APA 2013), disorders identified in the *Diagnostic and Statistical Manual of Mental Disorders*. A similar practice relates to trans-related codes in the *International Statistical Classification of Diseases and Related Health Problems* (World Health Organization 2018).

Depending on context, some people still need to obtain a formal diagnosis in order to access gender affirming care, and indeed these mechanisms contribute to beliefs about what it means to be trans, or even “trans enough” (Vincent 2020). The majority of professionals receive no training related to trans experience (MacKinnon et al. 2020). Medical and psychological training that does exist has been shaped by a psychopathologizing framework. Even in cases where professionals purport to recognize that being trans is not a mental illness, simplifications (including false equivalence between “being trans” and “suffering gender dysphoria”) may occur such that trans experience is conceptualized *as if* pathology. Imagining gender identity as a “disorder” is enacted through societal structures and systems, including the practices of researchers who study trans people. This is also reflected in terms of who is included on research teams and as co-authors, the ways studies are conceived and designed, in the identified objectives and hypotheses, and in the selection of measures and outcomes of interest.

2) Conducting Research Not Identified as a Priority by Trans Communities

Research about trans people typically reflects the interests and needs of researchers, clinicians, and funders. It is unclear how often decisions about research topics, or the identification of research questions, have been informed by the perspectives of trans individuals, communities, or other stakeholders. With the exception of participatory research, typically there is no discussion of connection to communities or their role in determining project focus in peer-reviewed publications. Instead, some authors describe how the purpose of the project relates either to their own learning goals (Kaufmann 2010) or to expanding knowledge in the field as a whole. Similar to other historically marginalized communities, these practices lead to justifiable anger and mistrust towards research and researchers, and require accountability (e.g. Jaiswal and Halkitis 2019; Perez-Brumer et al. 2021; Tagonist 2009).

Current practice supports the increased participation of people with lived experience in research prioritization (Johansson 2014; Staley et al. 2020). The involvement

of people whose lives are affected by research or policy decisions contributes in ways that may not have formerly been considered (Brett et al. 2014). Trans-focused community-based research studies in the dataset clearly described how trans community members were involved in the initiation or development of the projects themselves (e.g. Davidmann 2014; Travers et al. 2013). In the context of limited resources to fund research initiatives, centering trans people in identifying research priorities will help to increase the relevance of the information that is produced (Bauer et al. 2019). In addition to considerations related to areas of research priority, there are also implications attached to research design decisions.

3) Lack of Accountability in Research Design Decisions

Recent attention has turned to the importance of reducing research waste and increasing the value of research contributions (Moher et al. 2016). In the dataset, the majority of studies were descriptive, including cross-sectional surveys, exploratory qualitative studies, and clinical case reports (Marshall et al. 2019). There were 21 systematic reviews of descriptive or qualitative research. While we do not intend to reinforce a positivist view that prioritizes randomized controlled trials and meta-analyses, it is important to question what designs are being implemented and who benefits or is harmed by current approaches to study design (Lett et al. 2022).

In some situations, qualitative research provides new insights into specific aspects of trans identities and experience. For example, research conducted by Singh (2013) explores aspects of resilience for young trans women of color who are trauma survivors. In addition to enhancing our understanding of young racialized trans women, these results help to shift the field away from deficits and towards a greater focus on the strengths of members of the population being studied.

The example of case reports is not so clear-cut. Case reports document novel or rare medical circumstances and have traditionally been used for discovery and teaching (Packer et al. 2017). In the case of trans surgeries, there are a limited number of surgeons who conduct gender affirming procedures such as vaginoplasty, facial feminization, chest reconstruction, or phalloplasty. For trans people and their practitioners seeking detailed information about these procedures and potential complications, case reports can be of value. This is particularly true in the absence of clinical trials or other forms of study design. However, these publications also have the potential to augment the reputation of particular surgeons and to draw attention to their areas of expertise, possibly increasing the number of procedures they perform and their personal income. While the contribution of single case reports may benefit trans people in the way they address surgical techniques, side-effects, and complications, their contribution to evidence-informed practice is not always clear. We would argue that the value of case reports depends on how the information is used, whether the publication contributes to increased stigmatization of trans people, and whether researchers use existing case reports to conduct meta-analyses (Vandenbroucke 2001) or to develop more robust research. In order to address these challenges related to study design and research focus, four recommendations are identified below.

Recommendation 1: Adopt an approach to research that centers gender self-determination (Stanley 2014). Integrated this perspective would help to counter system-

ic cisgender norms that are embedded in typical research processes. A shift towards embracing gender diversity and experience within the context of self-determination would aid in addressing challenges linked to pathologization and the stigmatizing and at times highly disrespectful language used to describe trans bodies and experiences. Recent examples of these changes include a focus on trans joy and gender euphoria (Alutalica 2021; Jacobsen and Devor 2022; Shuster and Westbook 2022). As part of this first step, it is also necessary to acknowledge differences between conceptualizations of gender as binary and biologically based, and a broad diversity of genders determined by multiple factors. Ermine's (2007) concept of ethical space, developed in relation to research involving Indigenous communities, is helpful in clarifying the need for respectful engagement of difference across thought-worlds. For example, if cisgender experience were de-centered, researchers may be less likely to emphasize biology or genetics in thinking about gender because of the ways trans gender modalities unsettle assumptions about gender identity and gender assigned at birth.

Recommendation 2: Acknowledge the structural implications of study design on trans people. Study design influences the types of questions that can be explored, expectations of participants and research teams, and the potential impact of the project. The time and emotional costs of research participation for trans people and community partner organizations also need to be taken into account in making decisions about study design. Attending to the impact of research fatigue within trans communities is a further consideration (Ashley 2021; Glick et al. 2018). In order to make research more relevant, useful, and accessible, Chalmers and Glasziou (2009) and Moher et al. (2016) underline the importance of: i) public engagement in research prioritization; ii) appropriate research design, conduct, and analysis; and iii) accessible, full research reports.

Recommendation 3: Conduct research identified as a priority by trans communities. There are clear methods for centering communities in research prioritization, including detailed strategies outlined by the James Lind Alliance Guidebook for Priority Setting Partnerships (2021). Taking these steps will make it more likely that research that is funded and carried out is a priority to trans communities, that study designs will include a range of methods, and that research will contribute to transformative change. In considering research that is relevant to trans communities, it is also important to acknowledge diversity within trans communities, and to prioritize the leadership and perspectives of people from multiply marginalized subpopulations (Lett et al. 2022). Decision-making processes which do not account for systemic and structural discrimination will continue to replicate existing power hierarchies (Lett et al. 2022).

Recommendation 4: Establish trans research ethics initiatives in partnership with local communities. In addition to identifying research priorities alongside trans communities, it is recommended that trans communities establish research ethics groups to provide input and oversight into research happening in local communities. There are multiple approaches to organizing community ethics review processes. As documented by Shore et al. (2011) these processes primarily operated through community-based organizations, community-institutional partnerships, community health

centers, and tribal organizations. Recent research has highlighted the ways Indigenous communities have established models of accountability that balance individual and collective rights, support ethical principles that are culturally-grounded, and ensure research that is community-driven and self-determined (Hayward et al. 2021). Establishing trans research ethics initiatives, such as committees, boards, or consultation groups will contribute to larger community dialogues and histories, in solidarity with communities who have also been harmed by research and researchers.

DATA COLLECTION AND ANALYSIS

In this section, we consider the next phase in the research process related to data collection and analysis. Difficulties in this realm include: 4) reinforcing gender binaries, 5) collapsing gender identity and sexual diversity, and 6) misrepresenting trans experiences through data manipulation.

4) Reinforcing Gender Binaries

Aside from being grounded in cisnormative assumptions about sex and gender, research on trans people is also influenced by broader framings of gender binarism, where sex and gender are each classified as “two distinct, opposite, and disconnected forms of masculine and feminine” (Phoenix and Ghul 2016, 200). In contrast to gender binarism, gender can be considered a multiplicity (Linstead and Pullen 2006), one aspect of the diversity of human experience.

Beliefs about gender are concretized in the design of data collection tools, and in the ways data are analyzed (Lindqvist, Sendén, and Renström 2021). There are signs that help the reader to discern whether and to what extent researchers have adopted unproblematized cisnormative and/or binary assumptions about gender. For example, referring to “opposite sexes” or “both men and women” suggests that the writer believes there are only two genders and they may have been less likely to conceptualize their research to be inclusive of people who are nonbinary, or even non-cisgender.

Binarism is also communicated in the ways researchers position trans, nonbinary, and cisgender people in relation to each other. Within a cis-binary world view (Chen 2018), researchers may assume clear distinctions between trans, cisgender, and nonbinary identities. Research design needs to take into account the potential intersections of these experiences in the lives of individual research participants (e.g. Ashley 2022; Puckett et al. 2020; Scheuerman et al. 2021). Failure to acknowledge diversity within trans, nonbinary, and gender diverse communities can be invalidating, but more than this it demonstrates a lack of understanding of lived experience. For example, if a survey asks people to indicate if they are “men,” “women,” or “nonbinary,” this poses a dilemma for trans people who identify as men and/or women and who also want to be visible as trans (and not nonbinary) people. These categories are also not mutually exclusive for many people, and being forced to choose between “men,” “women,” or “nonbinary” can also create limitations related to what the dataset is capable of representing and communicating (Cameron and Stinson 2019; Frohard-Dourlent et al. 2017).

Data based on these types of question mean that participants in the response categories for “men” and “women” will include trans people, cisgender people, and oth-

ers, and researchers will have no way of clarifying their findings. In this example, if researchers reported that the nonbinary respondents were the only trans participants, this also communicates an underlying belief that trans people cannot be men and/or women. It is important to be aware of additional subtle distinctions in the ways these questions are worded. For example, if cisgender people are asked their gender, and trans people are asked for their gender identity, this reinforces the belief that cisgender people have gender, but trans people have gender identities (Motola 2012; Reed 2014). The different choice of words for cis versus trans people is implicit of a fundamental difference of validity between cis and trans peoples' genders, where cis peoples' genders are axiomatic and trans peoples' genders are suspect.

5) Collapsing Gender and Sexual Diversity

In addition to questions about gender, there are a number of ways researchers group trans people with sexually diverse participants, with particular issues related to data collection and analyses. For example, in some population health studies, participants are asked their gender at the start of the survey with the choice of "male" or "female." Then later in relation to sexual orientation they are asked, are you "a member of the 'gay, lesbian, bisexual, or transgendered community?'" (Perrella, Brown, and Kay 2012, 90). When this question is asked with a single "yes" or "no" response option, it is not possible to determine individual numbers of gay, lesbian, bisexual, or trans participants separately. A further difficulty occurs when there is no room for trans people to identify their sexual identities because of the ways the questions are posed. For example, if questions about gender include two response options (woman/man or male/female), and questions about sexual identity include single response options from a list of gay, lesbian, bisexual, transgender, then respondents are not able to identify as both transgender and lesbian (White et al. 2010). These response choices also foreclose experiences at the intersection of gender and sexuality, and do not make room for identity complexity and fluidity (Suen et al. 2020).

6) Misrepresenting Trans Experiences Through Data Manipulation

As researchers become increasingly aware of the existence of trans communities, learn more about how to access trans people through recruitment, and ask questions that are inclusive of trans experiences, trans people's data become more visible. However, this increased awareness in itself does not guarantee that trans people's information will be respected during data analysis. Respecting trans people's data means accurately and sensitively reflecting the diversity of trans people's lives (Adams et al. 2017).

One of the ways researchers fail trans people is to collect information from participants but to subsequently exclude it from data analysis. For example, in some studies researchers report that due to the small number of trans participants in the overall sample, they are unable to include this data in the analysis. Researchers typically explain this with statements such as, "Individuals who self-identified as transgender ($n = 35$) were also excluded from the analytical dataset due to the small sample size and focus on gender comparisons" (Yuan et al. 2014, 10464), "This project incorporated terminology for both queer and trans spectra; however, very few respondents identified along the trans spectrum and therefore were not included in our final subset" (Patridge, Barthelemy, and Rankin 2014, 79), or "... too few clients (<1%) reported their

sexual orientation as ‘questioning’ or ‘transgender’ to include in the study...” (Lipsky et al. 2012, 403). While some researchers may feel it is methodologically necessary to exclude trans participants from analysis due to small numbers of participants, the implications of these decisions and alternatives require careful consideration (Lett et al. 2022). To convey respect for participants, if trans data will be excluded based on sample size, this possibility should be clarified during recruitment and when obtaining consent in relation to the costs and benefits for trans people.

Another researcher practice when faced with low numbers of trans participants is to combine trans responses with larger subsamples. For example, some researchers explain that in order to include information from trans people they group them together with people from the same birth assigned gender. The emphasis on bio/logics (Van Anders 2014) over gender identity in analyzing and reporting results is most often observed in studies that focus on men who have sex with men (Solomon et al. 2014), but is also reported in other types of studies. For example, as Wells et al. (2013) report, “This coding was based on the assigned sex of the respondents and those to whom they were attracted” (315). Similarly, Newcomb et al. (2014) asked participants to identify their birth sex (options: male or female), sexual identity (options: male, female, male-to-female transgender, or female-to-male transgender), and sexual orientation (options: gay, lesbian, bisexual, questioning/unsure/other). Despite investigator efforts to gain more nuanced information about sexual orientation and gender identity with these questions, they went on to analyze their data according to birth assigned gender as described here,

Our study indicates that LGBT birth sex differences in smoking may be more similar to those found in general populations than was previously believed. However, over time male-born LGBT youth decreased their odds and rate of smoking, while female-born LGBT youth simultaneously escalated their rate of smoking and appeared to catch up to their male-born counterparts. (Newcomb et al. 2014, 562)

This grouping of trans people according to birth assigned gender is a fundamental betrayal. While it may simplify reporting or data analysis, it does so at the expense of participants’ own understandings of their lives and experiences. The classification of trans experiences in these ways reflects an underlying bias against the legitimacy of trans gender identities as valid, a form of epistemic injustice (Fricker 2007) that has implications beyond political correctness.

Recommendation 5: Closer attention to the design of data collection tools to allow for the full participation of all people would also improve data quality and respectful representations of trans experience. Specifically, **questions about gender and sexual orientation need to be asked separately**. If participants are being asked who they have sexual contact with, or who they want to have sexual contact with, this list needs to include more than standard responses of women or men. An increased diversity of response options would allow participants to more accurately reflect the range of gender and sexual identity (Suen et al. 2020).

Recommendation 6: The development and validation of gender and sexuality measures is a highly active area of research. This includes the multiple studies focused on

how best to ask about gender in surveys (Bauer et al. 2017; Broussard, Warner, and Pope 2018; Kosciuszka 2022; Lombardi and Banik 2016; Morrison, Dinno, and Salmon, 2021; Reisner et al. 2014; Tate et al. 2013), the development of new measures that more accurately reflect expansive gender and sexual identities (Dockendorff and Heist 2021; Frohard-Dourlent et al. 2017; Gender Census 2021; Westbrook and Saperstein 2015), critiques of existing measures (e.g. Glick et al. 2018; Katz-Wise et al. 2016; Lett and Everhart 2022; Snyder, Tabler, and Gonzales 2022), and recent research highlighting trans people’s perspectives on existing measures (Puckett et al. 2020; Suen et al. 2020). A number of guidelines have been published related to sexual orientation and gender identity questions in surveys including: *Best Practices for Asking Questions to Identify Transgender and Other Gender Minority Respondents in Population-Based Surveys* (Badgett et al. 2014), *Updates on Terminology of Sexual Orientation and Gender Identity Survey Measures* (Morgan et al. 2020), and *Measuring Sex, Gender Identity, and Sexual Orientation* (National Academies of Sciences, Engineering, and Medicine 2022). With the rapid growth in this field, and the ways language shifts to reflect emerging conceptualizations of sexual and gender diversity, our suggestions focus more on research processes than identifying specific measures or questions. It is recommended that researchers asking questions about sexual and gender diversity **remain up-to-date with the most current research, and engage with relevant trans communities in the development of research tools and measures.**

Recommendation 7: Potential participants have a right to know how researchers plan to use their information, including whether their data will be excluded in the case of small trans sample sizes, or if the researchers plan to analyze their responses according to birth assigned gender. There are increasing examples of how to do this. Vivienne et al. (2022) and Beischel et al. (2022) have also identified new strategies for categorizing sex and gender during data analysis, including the perspectives of research participants in developing these ideas. **During study design, recruitment, and data collection plan for how trans data will be managed and be transparent about this when seeking informed consent.** Research documents such as consent forms and data collection tools should make clear the investigator’s plans for data analysis, including whether all trans responses will be grouped together, or if data from trans people will be analyzed according to birth assigned gender. Failure to inform trans participants that their data will be excluded or that it will be analyzed according to birth assigned gender is a misrepresentation of the research process.

REPORTING AND PUBLISHING PRACTICES

There are multiple challenges related to reporting and publishing practices including: 7) misgendering, 8) informational erasure when describing sample demographics, and 9) under-attention to complex informed consent dynamics.

7) Misgendering

As defined by Ansara and Hegarty (2014, 260), “Misgendering describes the use of gendered language that does not match how people identify themselves.” There are several sites of misgendering within the dataset. In the context of peer-reviewed case reports,

authors tend to handle patient pronouns in one of four ways. They either refer to the person by their gender, they refer to them by their birth assigned gender, they refrain from referring to the participant's gender, or they refer to them by different pronouns before and after gender affirming surgeries. Unless authors explicitly address their choice of pronouns, these decisions can lead to ambiguities, and lack of clarity for the reader. There are many examples of authors who use birth assigned gender pronouns to refer to people who have pursued cross-sex hormones or gender affirming surgeries. For example, in referring to a patient pursuing facial feminization surgery the authors comment, "The case of a 39-year-old male-to-female transgender patient who underwent feminization of his masculine forehead is presented. Surgical techniques to feminize his forehead were as follows" (Cho and Jin 2012, 1207). Similarly, from Rieger et al. (2013), "All implants originated from women, except for two that were removed from men undergoing gender reassignment" (768). While case reports do not provide insights into patient descriptions of their gender, Kapusta (2016) has underlined the moral contestability of misgendering, including the refusal of some clinicians to acknowledge patient authority over their gender.

Another example of misgendering relates to labelling trans women as men who have sex with men (MSM). In some publications, authors describe their sample as MSM but later in a demographics table, results section, or footnote, they identify the number of "trans female" participants. Although there is increasing awareness of the ways it is unacceptable to refer to trans women as men, this practice continues (Parker, Aggleton, and Perez-Brumer 2016). For example, a study by Rhodes et al. (2010), begins with the following statement: "A community-based participatory research partnership explored HIV risk and potentially effective intervention characteristics to reduce exposure and transmission among immigrant Latino men who have sex with men living in the rural south-eastern USA" (797). Subsequently, the authors note "two participants self-identified as male-to-female transgender" (797). As noted by Kaplan, Sevelius, and Ribeiro (2016, 824):

the problematic conflation of trans feminine individuals and MSM in much of the existing HIV literature [...] has stymied progress in slowing the HIV epidemic in the most at-risk groups, including those who do not fit neatly into binary notions of gender and sex.

Finally, we have examples of misgendering rooted in transmisogyny. For example, in case reports some clinicians describe surgical outcomes in ways that suggest trans (women's) bodies are not legitimate. For example, Jarolim et al. (2009) state, "... for male transsexuals, surgery can provide a cosmetically acceptable imitation of female genitals" (1643). In other instances, authors highlight the functionality of trans affirming surgeries, particularly as they relate to the sexual experience of partners. One author went so far as to comment, "My responsibility is to make our patients a 'turn on'" (Reed 2011, 172). While on the one hand these comments may speak to priorities identified by surgeons (and some trans people), these statements communicate an underlying transmisogyny and fail to acknowledge the multiple meanings trans people may hold in relation to their bodies and gender affirming surgeries.

8) Informational Erasure in Reporting Research Results

The ways that researchers describe their sample demographics can make it difficult to discern who was involved. For example, some authors identify a certain number of LGBT or LGBTQ participants with no additional information about participant characteristics (Binnie 2014; Das 2012). Sometimes authors explain that this practice is to preserve the anonymity of their sample, which makes sense from one perspective, but this also means that it is not possible to be certain whether trans people participated or in what numbers. This situation is exacerbated when researchers resort to non-specific use of LGBTQI+ acronyms, and when they group results from all trans people together.

Regarding the non-specific use of LGBTQI+ acronyms, one challenge occurs when authors use trans-inclusive acronyms (e.g. LGBTQ or 2SLGBTQ) to refer to their participants but on closer examination of the sample demographics, no trans people (who are not already counted as 2SLGBTQ) are included. A further concern relates to the visibility of trans participants at different levels of the publication including title, abstract, and body of the text. Some authors do not mention trans people in the title or abstract, but do identify trans people when describing sample demographics. For example, the title of a study by Stroup, Glass, and Cohn (2014) identifies bisexual, gay, and lesbian students, “The adjustment to U.S. rural college campuses for bisexual students in comparison to gay and lesbian students: An exploratory study,” however 5.3% of the sample is trans. It should be noted that this also happens in relation to bisexual and other sexually diverse participants with identities outside lesbian and gay sexual identity categories. These practices erase (Bauer et al. 2009) trans participants and draw the reader’s attention towards (cisgender) gay and lesbian experiences, reinforcing their centrality. That it also takes more work for the reader to determine whether there are trans participants or not, means that the contribution of these participants is more likely to be overlooked and excluded from knowledge synthesis projects.

A second challenge occurs when researchers group results from all trans people together. Sometimes researchers only document the total number of trans participants, and are unable to distinguish between different groups of trans participants because of the ways that questions are posed. For example, in some surveys participants are asked whether they are “female,” “male,” or “transgender” and asked to select one option (e.g. Sherman et al. 2014). Someone can be both trans and male, or trans and female. Indeed, one can be male and assigned female at birth, female and assigned male at birth, and trans people of the same assignment at birth may select different options when presented with “male” and “female” response options. The benefit of these separate options is that the reader may be able to determine the total number of trans participants, however because of the way the question is asked, it is not possible to identify diversity within the trans sample, including the number of people who identify as trans women, trans men, nonbinary, people of transgender experience, or other genders. These practices may also be echoed when it comes to reporting, when all trans and gender diverse participants are combined, making it unrealistic to decipher the diversity of gender identities within the sample. For example, in McElroy, Everett, and Zaniletti’s (2011) study, “The data were also divided into heterosexual category and SGM [sexual and gender minority] category. Anyone who did not self-define themselves as male or female from the gender question and straight/heterosexual from the sexual orientation question was classified as SGM status” (441).

One of the impacts of these practices of informational erasure (Bauer et al. 2009) is that it becomes very difficult to identify who is impacted by structural forms of oppression including violence, discrimination, and poverty. For example, although trans women (including racialized trans women) are more likely to experience violence and criminalization, current approaches to reporting may lead the reader to erroneously believe that all trans people are equally at risk (Namaste 2011). This has further ramifications in that beliefs about who is affected by oppression and inequities can influence decisions about resource allocation including program and research funding (Tordoff et al. 2022). Apart from the methodological challenges this poses in relation to various forms of knowledge synthesis, reporting information in this format conflates gender and sexual diversity, erases specific aspects of trans and nonbinary experience, and fails to account for potential differences within communities.

9) Under-Attention to Complex Informed Consent Dynamics

In clinical research, it is not uncommon to encounter studies that use clinical assessment data or medical records with no discussion of explicit patient consent. There are multiple studies within the dataset that summarize clinic data from patient medical records (e.g. Anderson 2014; Bucci et al. 2014). The majority discuss enrolling consecutive patients in their studies, but do not elaborate on how informed consent is obtained. It is important to flag the complex dynamics that may influence the process of obtaining informed consent to participate in research from patients who are attempting to simultaneously gain access to gender affirming care (Adams et al. 2017). In these instances, it is unlikely that patients who are attempting to navigate access to treatments such as hormones or surgeries would be in a position to decline the request to participate in research carried out within the same service (Denny 1992; Toze 2015).

The requirement for informed consent to analyze de-identified health administrative data varies. In some countries, “fair processing notices’ ... are sent to data subjects to inform them that personal data are being processed for stated purposes” (Council of Canadian Academies 2015, 132). In others, there is no requirement to inform patients of the use of anonymized health information. Given the challenges presented by trans research in relation to respect for participants and the compromised nature of free and informed consent in the context of trans healthcare (for example, the practice of enrolling consecutive clinic patients in research studies), documentation of clear and transparent informed consent processes should be reported alongside study findings.

Recommendation 8: Use language that respects the lived experience of trans people.

Misgendering is only one sign of disrespect, however it is an important one (Kapusta 2016). Referring to people in ways that respect gender necessitates an awareness of the need to ask for this information, and instituting approaches that make room for gender diversity in responses (Bauer et al. 2009; Tordoff et al. 2022). It is recommended that clinicians and researchers have clear mechanisms for gathering information about gender and pronouns in order to accurately reflect (and respect) the self-determination of trans patients and participants.

Recommendation 9: **Emphasize transparency and specificity when reporting trans data.** For example, if there are only lesbian and gay (LG) participants in the sample, it is detrimental to include a B or a T when describing sample demographics. Researchers should also report disaggregated data and sample demographics (Tordoff et al 2022). If there are 18 Two-Spirit people, 14 nonbinary participants, 55 trans women, and 42 trans men in the study, report this information, not total numbers of trans participants. Researchers need to respect the gender identity of trans women and refrain from grouping these participants together with MSM. As well, when conducting systematic reviews if researchers are describing sample demographics, they should be inclusive of trans experience by documenting trans participants alongside cisgender sample demographics.

Figure 1. Trans Research Ethics Challenges and Recommendations

Stages in the Research Process	Challenges	Recommendations
Research Focus and Study Design	1) Centering a Cisnormative World View	1) Adopt an approach to research that centers gender self-determination
	2) Conducting Research Not Identified as a Priority by Trans Communities	2) Conduct research identified as a priority by trans communities
	3) Lack of Accountability in Research Design Decisions	3) Acknowledge the structural implications of study design decisions on trans people 4) Establish trans research ethics initiatives in partnership with local communities
Data Collection and Analysis	4) Reinforcing Gender Binaries	5) Ask questions about gender and sexual orientation separately
	5) Collapsing Gender and Sexual Diversity	6) Remain up-to-date with the most current research, and engage with relevant trans communities in the development of research tools and measures
	6) Misrepresenting Trans Experiences Through Data Manipulation	7) During study design, recruitment, and data collection plan for how trans data will be managed and be transparent about this when seeking informed consent
Reporting and Publishing Practices	7) Misgendering	8) Use language that respects the lived experience of trans people
	8) Informational Erasure in Reporting Research Results	9) Emphasize transparency and specificity when reporting trans data
	9) Under-Attention to Complex Informed Consent Dynamics	10) Require researchers and clinicians to obtain written consent to use trans health information

Recommendation 10: **Require researchers and clinicians to obtain written consent to use trans health information.** There are variations in the type of consent required for identifiable and de-identified health information. Given the historical relationship between researchers and trans communities, the level of medicalization experienced by trans people alongside dual clinician-researcher roles, explicit written consent to use trans people's health information for research purposes should be mandatory (Adams et al. 2017). Documenting informed consent within peer-reviewed publications, as recommended by the Committee on Publication Ethics, would also clarify whether participants have given explicit written consent.

CONCLUSION

In this manuscript, we have highlighted key ethical challenges and recommendations at each stage of the research process with trans people (see Figure 1). Challenges at the level of research focus and study design include: 1) centering a cisnormative world view, 2) conducting research not identified as a priority by trans communities, and 3) lack of accountability in research design decisions. Related to data collection and analysis, there are concerns related to 4) reinforcing gender binaries, 5) collapsing gender and sexual diversity, and 6) misrepresenting trans experiences through data manipulation. In terms of reporting and publishing practices, problems are identified related to 7) misgendering, 8) informational erasure in reporting research results, and 9) under-attention to complex informed consent dynamics.

One of the limitations of this project is that these challenges were identified during a trans research mapping process with publications from 2010-2014. This has allowed us to include very specific illustrations from that period but also helps to explain why some of the examples are not from publications in the last couple of years. Grounding the identification of challenges in this dataset meant that we did not go beyond the scope of the studies we examined. Citations related to specific papers are included to provide concrete examples, with the awareness that the perspectives and practices of researchers and clinicians may have changed over time. This reminds us that research, including the identification of specific challenges and suggestions in the field of trans research, is context dependent.

Ten recommendations were developed in response to these challenges: 1) adopt an approach to research that centers gender self-determination, 2) conduct research identified as a priority by trans communities, 3) acknowledge the structural implications of study design decisions on trans people, 4) establish trans research ethics initiatives in partnership with local communities, 5) ask questions about gender and sexual orientation separately, 6) remain up-to-date with the most current research, and engage with relevant trans communities in the development of research tools and measures, 7) during study design, recruitment, and data collection plan for how trans data will be managed and be transparent about this when seeking informed consent, 8) use language that respects the lived experience of trans people, 9) emphasize transparency and specificity when reporting trans data, and 10) require researchers and clinicians to obtain written consent to use trans health information.

The development of recommendations was complex. We believe that the identification of recommendations should be carried out in collaboration with trans com-

munities. Earlier drafts of this work included fewer suggestions, however through the revision process it became clearer that identifying recommendations based on the existing record of research with trans people might support greater accountability. In the process of summarizing challenges and identifying suggestions, it became clear that many authors, including trans researchers and community members, are calling for change and contributing to this dialogue. Where possible, we have made links to recommendations that others have identified or endorsed. The number of publications in this area is accelerating, and similar to research prioritization, it leads to larger questions about how and who is involved in identifying recommendations for improving trans research processes. As we work towards holding researchers accountable and conducting research with transformative potential, it would be useful to draw together this literature, to synthesize key recommendations, and to engage in a process of review and refinement in partnership with diverse trans communities, with particular attention to communities who have been historically-excluded from research processes (Lett et al. 2022).

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