Distinguishing Gender Identity From Biological Sex in Dermatologic Health Care

School of Medicine
UNIVERSITY OF COLORADO
ANSCHUTZ MEDICAL CAMPUS

INTRODUCTION

Although gender identity is a social determinant of health, its assessment in health care research is inadequate. We highlight the intricacy of gender and biological sex in dermatology research, revealing the need for more robust protocols for their assessment. We begin by evaluating the current protocols used to make such assessments, demonstrating lack of consensus. Next, we evaluate the relationships between biological sex and gender identity and how these impact skin health. We then examine the inadequate representation of gender minorities—including those who identify as transgender or gender nonbinary—in academic literature and how this disparity compromises the applicability of evidence-based medicine to all. Finally, we consider the importance of physician communication about gender identity.

METHODS

The articles analyzed in this study emphasize the importance of transparency when delineating differences between biological sex and gender identity. In addition, researchers should be coached on techniques to extinguish investigators' biases. The models and tools for discerning gender identity and biological sex are shown in Table 1.

Note that the results obtained from the above methods were analyzed in conjunction with other questionnaires to assess correlations between the factors affecting overall population health. Gender identity assessment tools must be regularly updated to accurately reflect the specific generational, cultural, and institutional contexts of the time.

Methods, Harms, and Paths Forward

RESULTS

Gender Differences in Dermatologic Health

- Those assigned male at birth tend to have:
  - Higher sebum content
  - Thicker skin Deeper facial wrinkles
- Research on gender and dermatologic care is limited
- EHRs conflate This biological sex and gender
- Gender-affirming therapies can cause significant skin changes, including:
  - Increased risk of acne vulgaris
  - Androgenetic alopecia
  - Excessive sebum production
  - Melasma
  - Hirsutism

Gender Minorities in Literature Representation

- Skin differences exist across gender identities
- Transgender populations face underdiagnosed conditions due to limited research
- Healthcare barriers arise from non-inclusive treatment models
- iPledge guidelines restrict transgender access to isotretinoin
- Gender minorities lack clinical trial representation
- Health risks vary by stage of gender-affirming therapy
- Inclusive data models improve research and patient care.

Physician Communication

- 28% of transgender individuals delay care due to mistreatment
- Inclusive language builds trust in transgender communities
- Medical professionals need training in gender-inclusive terminology
- Physicians should ask about preferred terminology instead of assuming
- Misgendering harms patient health and trust
- If misgendering occurs, offer a brief, sincere apology and commit to improvement.

Table 1

Questionnaires
• Stanford Gender-Related Variables for Health Research (GVHR) [1]
• Bem Sex-Role Inventory (BSRI) [1,2]
• BSRI: short form [1,2]
• GENESIS-PRAXY (Gender and Sex Determinants of Cardiovascular Disease: From Bench to Beyond-Premature Acute Coronary Syndrome) [1]
Guidelines and recommendations
• Sex and Gender Equity in Research (SAGER) guidelines [3]
• Sex-gender variable: methodological recommendations for increasing scientific value of clinical studies [4]

DISCUSSION

Robust methodologies exist to eliminate subjectivity and maximize data accuracy and utility. Current approaches to distinguishing gender identity and biological sex are inadequate and threaten the applicability of research findings to many patients. Conflating sex and gender neglects the unique dermatologic health impacts of these attributes and contributes to the underrepresentation of gender minority populations in medical literature. While more research is needed to address these issues, communication training for physicians and other health care providers could be improved. The language used must respect patients' identities while maintaining objectivity in clinical research.

AUTHORS

Noah Nigro BS | Neal Chandnani MS | Athena Doshi BS | Alexa Fritsch BS | Nathaniel A Marroquin BS | Morgan Zueger BS | Torunn E Sivesind MD | Robert Dellavalle MSPH MD | Cory Dunnick MD

DISCLOSURES

RD is an editorial board member of Cochrane Skin and the *Journal of the American Academy of Dermatology*, a dermatology section editor for UpToDate, and editor-in-chief of *JMIR Dermatology*. He is a coordinating editor representative on Cochrane Council and Cochrane Council cochair. He receives editorial stipends (*JMIR Dermatology*), royalties (UpToDate), and expense reimbursement from Cochrane. TES is an editorial board member-at-large for *JMIR Dermatology*. She receives fellowship funding from the National Institutes of Health (grant 2T32AR00741136A1; principal investigator: Dennis Roop). The other authors declare no conflicts of interest.