CIHR: Sex, Gender, & Diversity Considerations

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Gender & Diversity Considerations

1. CIHR Funding Environment
2. Diversity & Research Teams
3. CIHR Update on S & G
4. S & G in Proposal Development
1. CIHR Funding Environment

CIHR gender equity data analyses

1. comparable success rates
2. fewer funds requested by ♀
3. inequities in broader context

![Bar chart comparing within-sex success rates for Females and Males across different age groups, Project Grant 2015/16]
Please select the option that best describes you:

- Woman
- Man
- Gender-fluid, non-binary, and/or Two-Spirit
- I prefer not to answer

What is your year of birth?  

[YYYY]

- I prefer not to answer

Do you identify as indigenous; that is First Nation (North American Indian), Métis, or Inuk (Inuit)?

- Yes
- No
- I prefer not to answer

Do you identify as a member of a visible minority?

- Yes
- No
- I prefer not to answer

Are you a person with a disability?

Note: Person with a disability is a person who has a long-term or recurring physical, mental, sensory, psychiatric or learning impairment and:

- Who considers themselves to be disadvantaged in employment by reason of that impairment; or
- Who believes that an employer or potential employer is likely to consider them to be disadvantaged in employment by reason of that impairment; and
- Includes persons whose functional limitations owing to their impairment may have been accommodated in their current job or workplace.

- Yes
- No
- I prefer not to answer
2. Diversity & Research Teams

Better outcomes
• variety of insights and ideas
• creativity, productivity, engagement, innovation

Equitable mentorship
• diverse role models
• mentoring opportunities

Inclusive research and work environment
• merit and excellence
• flexible, feeling of belonging
• recruitment and retention more successful

Resources:
• NSERC Guide: Considering equity, diversity, and inclusion
• Neilsen et al. PNAS. 2017;114:1740-1742
• Freeman et al. Nature Comment. 2014;513:305
3. CIHR Update on Sex & Gender

Applications addressing S & G:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage (Current)</th>
<th>Percentage (Previous)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Science</td>
<td>55% (from 19%)</td>
<td></td>
</tr>
<tr>
<td>Clinical</td>
<td>82% (from 56%)</td>
<td></td>
</tr>
<tr>
<td>Health Systems</td>
<td>86% (from 46%)</td>
<td></td>
</tr>
<tr>
<td>Population Health</td>
<td>90% (from 79%)</td>
<td></td>
</tr>
</tbody>
</table>

Quantity ≠ Quality

Start thinking about intersectionality

Basic science use **ARRIVE guidelines**

Sex and gender champions:

"a researcher who possesses or acquires expertise in the study of sex as a biological variable and/or gender as a social determinant of health” [http://www.cihr-irsc.gc.ca/e/50652.html](http://www.cihr-irsc.gc.ca/e/50652.html)

CIHR S&G Champion Community of Practice: [gary.wang@criugm.qc.ca](mailto:gary.wang@criugm.qc.ca)

U of S S&G Community of Practice
3. CIHR Update on Sex & Gender

Peer Review:

Spring 2018
- Box to provide specific feedback
- Chair and SO completed training module
- Key considerations for reviewers, http://www.cihr-irsc.gc.ca/e/50835.html
- 2 experts on each committee
- Video: Sex and Gender in Peer Review

In addition, for Fall 2018
- Quality of comments will be assessed
- Tick boxes: strong/weak
- Provide feedback in internal reviews
CIHR: Assessing Sex and Gender in Peer Review

https://www.youtube.com/watch?v=Hlceez1Dx5E
4. Sex and Gender Considerations in Proposal Development

• CIHR expects that all applicants will integrate gender and sex into their research designs when appropriate.

• “Accounting for gender and sex in health research has the potential to make health research more just, more rigorous and more useful.” CIHR Grants and Awards Guide
Main S & G Concerns in Health Research

- Biological sex differences are not well understood
- Gender bias is often present in research design and health delivery

Sex and gender do not exist in a vacuum, Intersectionality is important.
Gender Based Analysis Plus (GBA+)

Consider intersecting parts of identity, the context we are in and our live realities.

What happens if we miss or misinterpret these experiences?

Project Grant: Application Instructions

• Task 2: Enter Proposal Information
  • Subtask: Details

Is sex as a biological variable taken into account in the research design, methods, analysis and interpretation, and/or dissemination of findings? Y/N
Is gender as a socio-cultural factor taken into account in the research design, methods, analysis and interpretation, and/or dissemination of findings? Y/N

If yes, describe how sex and/or gender considerations will be integrated in your research proposal (2000 characters).
If no, explain why sex and/or gender are not applicable to your research proposal (2000 characters).
Research Proposal Development: Setting the Context

• What does the literature say?
  • Identify the relevant sex and/or gender trends, issues, and considerations in your area of study

• What is known about gender-theories and/or intersectionality in your area of study?

• How can studying the impact of sex and/or gender on health improve your research?
Research Proposal Development: Methods (1)

- Biomedical Research: Have you considered the sex of cells, tissues, and/or animals being used in your sample?
- Research with Human Participants: Is your recruitment strategy appropriate for people who are diverse?
- Policy, Systems, and Ethics Research: Have the experiences of women, men and gender-diverse people been considered in defining the issue?
Research Proposal Development: Methods (2)

Addressing bias in data collection and analysis:

- Biomedical Research: Are you controlling for hormonal status of animals? Have you considered behavioural differences between sexes that may be a confounder?
- Research with Human Participants: Are your tools sensitive enough to capture sex and/or gender differences? Have you used inclusive language?
- Policy, Systems, and Ethics Research: How might sex and/or gender differences influence who collects the data, who responds, and who analyses the data?
Research Proposal
Development: Knowledge Translation

Framework: Knowledge to Action Cycle

Resources

- CIHR Sex and Gender Training and Tools
- CIHR Gender, Sex, and Health Research Casebook
- CIHR Institute of Gender and Health
- CIHR Sex, Gender, and Knowledge Translation
- CIHR Ethical Imperative of Sex and Gender Considerations
- CIHR College of Reviewers, SGBA Integration

- SAGER Guidelines (Sex and Gender Equity in Research) (for publications)
- GBA+ (Gender-Based Analysis Plus)
- NIH Science of Sex and Gender in Human Health, Online Courses
- ARRIVE guidelines for Reporting Animal Research
Resources

Articles of Interest:

• “Assessment of potential bias in research grant peer review in Canada”
• “Female grant applicants are equally successful when peer reviewers assess the science, but not when they assess the scientist”
• “The gendered system of academic publishing”
• “Collaboration: Strength in diversity”
• “Evidence for a collective intelligence factor in the performance of human groups”
• “Essential metrics for assessing sex & gender integration in health research proposals involving human participants”
Questions?
Panel Discussion

• Panelists:
  • Dr. Alexander Crizzle
  • Dr. Darryl Falzarano
  • Dr. Saija Kontulainen
  • Dr. Franco Vizeacoumar
  • Dr. Joyce Wilson

• Moderator:
  • Dr. Darcy Marciniuk
SEX AND GENDER IN HEALTH RESEARCH

SEX = identity based on biological attributes such as genes, hormones, and reproductive/sexual anatomy.

GENDER = identity based on how we perceive ourselves and others; socially constructed roles, behaviours, and expressions.

Main issues in health research

Biological sex differences are not well understood & Gender bias is often present in research design and health delivery

Intersectionality is important!

Sex and gender do not exist in a vacuum. They are interconnected with domains such as race, ethnicity, social position, sexual orientation, disability, oppression, privilege, policies, practices, etc., and many of these can vary based on individual situations.

Even in work with lab animals, consider strain, age, temperament, behaviour, and environmental enrichment.

How can you address intersectionality in your work?

Checklist for Integrating Sex and Gender Considerations*

1. RESEARCH PROPOSAL AND DESIGN

Biomedical Research

☐ Are you familiar with the relevant literature regarding sex differences in your mechanism/disease/pathway of study?
☐ Are the following considered in your research question: identification of sex and/or gender differences or similarities; sex-specific pathways; sex and/or gender as a confounding variable?
☐ If studying a single sex have you provided justification?
☐ Have you identified sex of cells, tissues, or animals being used?
☐ Have you described if and how you are controlling for hormonal status of animals?
☐ Have you considered animal behavioural differences between sexes that may be a confounder? And human biases that may result in misinterpretation of behaviour?
☐ Have you provided detailed information on sample size calculations and data analysis methods to consider sex?

Research with Human Participants

☐ Are you familiar with the relevant literature regarding sex and/or gender differences in your area of study?
☐ Are the following considered in your research question: identifying and explaining presence or absence of sex and/or gender differences in an intervention/outcome; sex and/or gender as a confounding variable?
☐ If studying a single sex and/or not considering gender, have you provided justification?
☐ Is your recruitment strategy appropriate for people who are diverse, based on factors like sex and gender?
☐ Are data collection tools sensitive and appropriate to capture sex and/or gender issues, and not gender-biased? Is inclusive language employed?
☐ Have you provided detailed information on sample size calculations and data analysis methods to consider sex and/or gender?

Policy, Systems, and Ethics Research

☐ Are you familiar with the relevant literature regarding sex and/or gender issues in your area of study?
☐ Have you identified gender issues in the system of interest through use of sex-disaggregated data?
☐ Have you analyzed power relations and values informing your research though a gender framework?
☐ Have you considered the appropriateness of your methodologies from a gender perspective?
☐ Have you considered how gender might influence who participates in your research, who collects the data, where it is collected, and who analyzes the data?
☐ Have you considered who will be empowered and disempowered by the outcomes?

2. REPORTING AND COMMUNICATION

☐ Will you report null findings with respect to sex and/or gender?
☐ Does your knowledge translation and exchange (KTE) plan consider how to reach, impact, and maximize uptake by all relevant audiences?
☐ Does your KTE content and distribution plan need to vary by sex and/or gender?
☐ How will your findings affect sex and/or gender issues in clinical practice, policy development, and research practices?

3. RESEARCH TEAM

☐ Does your research team reflect the population you are studying, i.e. sex, gender, ethnicity, patient advisors, community members, etc?
☐ Did you know that diversity on research teams lead to better science and improved metrics?
☐ Does one or more of your team members have experience and/or training in sex and gender science?
☐ Have you considered including a sex and gender champion on your team?

* this checklist is not exhaustive, but rather is meant as a guide to help you gain perspective in your own research

Resources used for the development of this checklist and other helpful tools:

☐ CIHR: Sex and Gender Training and Tools
☐ CIHR: Sex and Gender Research Casebook
☐ CIHR: Institute of Gender and Health Resources
☐ CIHR: Sex, Gender, and Knowledge Translation
☐ CIHR: The Ethics of Sex and Gender Considerations
☐ CIHR: College of Reviewers: Key Considerations

☐ Sex and Gender Equity in Research Guidelines
☐ Gender-Based Analysis Plus (GBA+)
☐ NIH Online Sex and Gender Course
☐ Freeman et al. Nature Comment. 2014;513:305
☐ Nielsen et al. PNAS. 2017;114:1740-1742

Acknowledgements: Thank you to the following University of Saskatchewan researchers with expertise in sex and gender in research who provided valuable feedback and suggestions for this resource: Dr. Meridith Burles, Dr. Alana Cattapan, Dr. Melanie Morrison, Dr. Todd Morrison, and Dr. Peggy Schmeiser.

For more information & resources, contact: Robin Thommerie, Research Facilitator, College of Nursing, University of Saskatchewan, and Erin Prosser-Loose, Research Coordinator, Department of Pediatrics, College of Medicine, University of Saskatchewan.

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