Issues in Publishing
Overview of Session & Introductions

Karen: Editorial process & Council on Publication Ethics
Introduction

Susan J: Distinguishing between reproducibility vs. not adding enough to the literature to merit publication.

Julie: “Salami slicing”

Madeleine: Overstatement of results

Chris: Precision of language

Bret: Good etiquette in citing references, eg what is a good citation, how many
Overview of Session: Editorial Process
Editorial Process/Systems Overview

Managing Editor

Editor In Chief

Associate Editor

Reviewers

A Most Important Manuscript
Abbie Brown, PhD
Claudia Downs, MS
Edward Fisher, PhD
Department of Fabulous Thinking
University of Excellence

A Most Important Manuscript
Abbie Brown, PhD
Claudia Downs, MS
Edward Fisher, PhD
Department of Fabulous Thinking
University of Excellence

A Most Important Manuscript
Abbie Brown, PhD
Claudia Downs, MS
Edward Fisher, PhD
Department of Fabulous Thinking
University of Excellence

www.jneb.org

Journal of Nutrition Education and Behavior
COPE is committed to educate and support editors, publishers and those involved in publication ethics with the aim of moving the culture of publishing towards one where ethical practices becomes a normal part of the publishing culture.

https://publicationethics.org/about/our-organisation
Council on Publications Ethics

- Flowcharts
  - Allegations
  - Authorship
  - Conflicts of interest
- Guidelines
- Cases
- eLearning

www.jneb.org
HOW TO RECOGNISE POTENTIAL AUTHORSHIP PROBLEMS

Authorship Policies:
Clear policies (that allow for transparency around who contributed to the work and in what capacity) should be in place for requirements for authorship and contributorship as well as processes for managing potential disputes.

For further details see: publicationethics.org/authorship

Relevant COPE Cases:
Stolen Article: https://bit.ly/2Zk9NhX
Withdrawn Request by an Author: https://bit.ly/2E4jaE

Relevant Flowcharts:
Suspected Ghost, Guest or Gift Authorship: https://bit.ly/2E9ekf

References:

Version 1: November 2018 © 2018 Committee on Publication Ethics (CC BY-NC-ND 4.0)
What makes for a publishable contribution to the literature?

- Reproducibility and Innovation: what is the tension about?
- The case for reproducibility
  - Pilot and fully powered studies
- What makes a study innovative?
  - Diverse sample (with comparison group) that either confirms existing model or that adds nuance to the model
  - New model tested or additional constructs added to existing model
- Preferable to add to, rather than simply confirm, existing literature

www.jneb.org
Reproducibility and innovation

- Reproducibility is a cornerstone of science
- BUT, researchers get rewarded for innovation
- What is the key channel through which both flourish:

- Rigor—
  - Details included/referred to
  - Terminology defined
  - Psychometrics included or established
  - Blinded assessors
  - Well-controlled studies
  - Appropriate statistical analyses
  - Appropriate interpretation/conclusion
  - Limitations and strengths
How to write “Rigorously”

- Challenge and try to disprove the hypothesis
- Replication
- Validation
- Generalization
- Perturbation
- Consistency
- Consideration of introduction of errors
- Sensitivity analysis
- Power calculation
- Other statistical considerations
- Size of observed effect
- Acknowledgement of data that do not meet hypotheses
- Acknowledgement of others’ work
- Corroborate with others

Arturo Casadevall, and Ferric C. Fang mBio 2016;
doi:10.1128/mBio.01902-16
Salami Slicing

Salami publication (sometimes called bologna or trivial publication) is the practice of dividing one significant piece of research into a number of small experiments (least publishable units or LPUs), simply to increase the number of publications.
Self-plagiarism

- authors who reuse their own previously disseminated content and pass it off as a "new" product without letting the reader know that this material has appeared previously.
Considerations to Avoid Salami Slicing

- If the results of a single complex study are best presented as a ‘cohesive’ single whole, they should not be partitioned into individual papers.

- Furthermore, if there is any doubt as to whether a paper submitted for publication represents fragmented data, authors should enclose other papers (published or unpublished) that might be part of the paper under consideration.
Overstatement of Findings

NEWS FLASH
Overstatement of Findings

Statistical vs. clinical/practical significance of a nutrition education intervention

- Does consumption of 1.5 ounces SSB less than the mean reflect a higher quality diet?

- When might an intake of 0.5 servings of vegetables more than the mean reflect a higher quality diet?
  - Type of vegetable
  - Meets the recommendation
Overstatement of Findings

**Effect size*** (Cohen’s d/ Pearson’s r correlation)

<table>
<thead>
<tr>
<th>Relative size</th>
<th>Effect size</th>
<th>% of control group below the mean of experimental group</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>0.0</td>
<td>50%</td>
</tr>
<tr>
<td>Small</td>
<td>0.2</td>
<td>58%</td>
</tr>
<tr>
<td>Medium</td>
<td>0.5</td>
<td>69%</td>
</tr>
<tr>
<td>Large</td>
<td>0.8</td>
<td>79%</td>
</tr>
<tr>
<td>1.4</td>
<td></td>
<td>92%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strength of Association</th>
<th>Coefficient, r</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
</tr>
<tr>
<td>Small</td>
<td>.1 to .3</td>
</tr>
<tr>
<td>Medium</td>
<td>.3 to .5</td>
</tr>
<tr>
<td>Large</td>
<td>.5 to 1.0</td>
</tr>
</tbody>
</table>

*https://www.simplypsychology.org/cohen-d.jpg?ezimgfmt=rs:474x224/rscb19/ng:webp/ngcb19
Overstatement of Findings

Correlation Coefficient

R value reports strength of relationship.
R² value reports how much of the variance is accounted for by the model.

e.g. an r value of .7 means 49% of the variance is related
Overstatement of Findings

Cross-sectional Studies

- Cannot imply causality
- Potential bias (recall, response)
- Bidirectionality

Secondary Analyses

- Was study designed to answer the new research question?
Overstatement of Findings

- Temper language
- Acknowledge limitations
- Consider generalizability
- Potential biological plausibility
- Suggest future research and practice needs based on findings
Precision of Language

- Research questions drive the design and the statistics
  - Establishes the context of your story

- The tone and accuracy of the language are critical to accurately communicating of findings
  - Context
  - Content
  - Representation
  - Causation/Association
  - Temporality
What term is correct?

- Intakes or habits?
- Usual intakes?
- Adequate or optimal?
- Good or more desirable?
- Healthy? Unhealthy?
- Consumed or Reported?
- Increased or higher?
- Better or improved?
- Correlates or determinants?
- Knowledge or awareness?
- Should or could?
Critical Nature of Language

- Communicates the application of the findings to the reader
- Establishes impact and implications
- Defines level of evidence
- Inaccurate representation often leads to the overstating of findings and an inappropriate recommendations for practice
Guidelines for Responsible Referencing

- Which statements need citations?
- Which citations to select?
- Here are some guidelines for selecting citations

Read the Publications You Cite

- Does the paper actually say what you infer?

- The citation should be Primary & Authoritative

- Cite the original
  - Avoid citing a paper that paraphrases the original

- Recent and/or seminal
Cite In Accordance With Content

- The citation should point to the current point being made
- Cite transparently, not neutrally
- Cite yourself when required
- Prioritise the citations you include
- Evaluate citations as framed communication

-Thank you
Summary and Conclusions

- Primary issues covered today
  - Process
  - Ethics
  - Reproducibility and innovation
  - Overstatement of findings
  - Precision in language

- Questions?