Writing a discussion section for health research papers (or dissertations)

Research paper structure

- Introduction: why ask this research question?
- Methods: what did we do?
- Results: what did we find?
- **Discussion: what might it mean?**
- **Conclusion: overall key message.**

The purpose of the discussion section

To:

- Answer the main research questions posed in the introduction
- Show how the answers are supported by the results.
- Discuss the significance of your findings in light of the existing body of knowledge about the subject

What to include (1)

- Summarise the study and results in relation to the aims and objectives
- Discuss how the results relate to your original expectations
- Identify conflicting data in your work and unexpected findings.
- Discuss how this fits into the previous literature (e.g. similar studies - cite these)
- Discuss and evaluate alternative explanations of your results/ possible mechanisms & explanations for finding

What to include (2)

- Strengths and limitations/weaknesses of your study and the importance of these limitations to the interpretation of findings (e.g. internal and external validity)
- Summarise the main implications of your findings – in what way are they significant and how might they impact our understanding of the topic, practice and policy?
- Suggestions for further research or future directions

Conclusion section

- Not all journals ask for a conclusion section but you might end with a conclusion to a discussion – it should be very short.
- Look back on your results to ensure that all the data you need is there to fully support the conclusions you reach.
- What are the main take-home messages of your study?
- What is the main contribution that your study makes to your field?

How to approach writing the discussion

- Structure it from the ‘specific’ to the ‘general’: expand from the narrow details of your study to the general implications or contributions to the topic and field.
- Start by rewriting your research questions/ hypothesis (that you posed in your introduction) and then write the answers.
- Make sure that the claims are justified by the methods, results and other literature.

Some methodological considerations

Don't ignore negative results. Just because a results failed to support your hypothesis, it does not mean it is not important.

Don’t mistake the absence of evidence as evidence for absence?

Strictly distinguish between discussing pre-specified hypotheses or tests and newly proposed hypotheses from post-hoc analyses.

Don’t over-interpret small (unimportant though statistically significant findings).

Tips for writing the discussion

- Follow a logical stream of though, be concise and clear.
- Use subheadings to help organize the text according to themes
- Don’t introduce new results in the discussion.
- Don’t let your interpretation be dominated by statistical significance.
- Don’t over claim:
  - Statements should justified by the results
  - Don’t overstate causality
  - Use terms like ‘may’ rather than ‘is’