



Writing Effective Scientific Manuscripts

or

Getting into Print

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BRIGHAM AND
WOMEN'S HOSPITAL



HARVARD
MEDICAL SCHOOL
TEACHING AFFILIATE



"Credentials"

- Associate Editor, American Journal of Psychiatry, 1982-1990
- Editor, Academic Psychiatry, 1989-1995
- Education Editor, Harvard Review of Psychiatry, 1992-
- Editorial Board Member: Academic Psychiatry, Community Mental Health Journal, Psychiatric Quarterly, Harvard Mental Health Letter, Journal of Clinical Psychiatry
- Reviewer for a host of psychiatry and medicine journals, eg, NEJM, Archive Int Med, etc



Objective

- To help you become a

- Better

- Smarter

- More successful

writer for publication in the professional literature



Why write?

- Share ideas
- Get feedback
- Reap academic rewards



Why write?

- Regardless of the above reasons, you must be truly invested in what you are writing about or
 - You won't be able to convince others (reviewers, editors, readers) that your article is important enough to publish and read
 - You won't be able to withstand the slings and arrows of publishing



How are papers organized?

- Logical structure with a basic formula
- Five sections
 - Introduction
 - Methods
 - Results
 - Discussion
 - Abstract



Introduction

Start building the case why the reader should be interested in your study

- Describe the area being studied
- Review the pertinent literature in that area that leads up to your study
- Conclude with a description of how your study is the logical next step and/or fills a gap in the existing literature



Methods

- Describe what you did so the reader can understand and someone else potentially could repeat your study
 - **Setting**
 - **Sample**
 - **Timeframe**
 - **Measures**
 - **Outcomes**
 - **Data analysis plan**



Results

- Describe what you found (not what you believe it means)
- Remember – space is at a premium
- Present the positive and negative data of your findings in
 - Text
 - Tables
 - Figures



Discussion

- Describe what you believe the findings displayed in your Results section mean
- Describe the significance of your findings
- Describe the limitations of your findings
- In conclusion, describe where your findings lead and the logical next steps



Abstract

- Write the Abstract **after** you have completed your paper, even though it gets printed before the text of the paper
- The Abstract is a brief precis of the introduction, methods, results and discussion to help the reader decide whether to read your article
- Don't exceed the length limit



Building your case

- All papers need to be structured so as to logically lead to what the findings are and why they are important
- Writing a paper is always a stepwise “building project” intended to convince readers that they have made a good investment in reading your paper because it adds incrementally to their knowledge
- Frequent subheadings help build the case



How and where should you “aim” your paper?

- **Do your homework!** Before you write a word, learn about the journals you may want to publish in
 - Read, or at least scan, journals to see what types of articles they publish
 - See if they have recently published in your area
 - Read the “Information to Contributors” so you know each journal’s style, length, and format expectations



How and where should you “aim” your paper?

- Talk to colleagues and find out about the journal’s review process – its speed, type, helpfulness
- Determine the relative “academic credit” you will get by publishing in a specific journal
- Aim high, but not “pie in the sky”



The review process

- **Before submitting**
 - Get a “pre-review” from a mentor or senior colleague who will help you edit down your paper – your prose is only “golden” to you



The review process

- **Before submitting**

- **Proofread your work** – don't tick off the reviewers and editors unnecessarily



The review process

- **Before submitting**

- Write a cover letter briefly describing your article to help the Editor decide which reviewers to send it to
- Some journals will let you suggest reviewers, most will not



What do reviewers look for

- Logical organization
- Clear and concise writing
- Interesting content area
- Correct data analysis
- Important results
- Thoughtful discussion without overgeneralization



Editorial decisions

- **The Editor makes the final decision, not the reviewers – three decision options**
 - **Accept** – rare on first pass
 - **Revise**
 - Major modification
 - Minor modification
 - **Reject**

- Editor writes decision letter to author



What to do if asked to revise your paper

- Deal with the narcissistic blow – “It’s not personal, its just business”
- Reread comments carefully after dealing with narcissistic blow – share with co-authors
- **Revise right away** – delay won’t make it easier
- Respond to all reviewers’ and editor’s comments
 - **Make the requested changes you can make**
 - **Note why you can’t make other changes in a cover letter**



What to do if your paper is rejected

- Deal with the narcissistic blow – “it’s just business”
- Think over the reviewers’ and editor’s comments and consider their merit



What to do if your paper is rejected

- If the comments have limited merit, show them to a senior colleague
 - You can always ask for a re-review
- Rewrite and submit to another journal
- Some papers, based on flawed methods or data, cannot be salvaged



The fate of rejected papers

- Two articles published in 2000 tracked the fate of papers that had been rejected
- Within 5 years, 69% of papers rejected by a general medical journal (Annals Int Med) had been published elsewhere, most in specialty journals with lower impact scores
- Within 4 years, 47 % of papers rejected by a specialty journal (Cardiovascular Research) had been published elsewhere
- **If at first you don't succeed, try try again!**



Writing consultations

- Consult with seasoned authors in your department at any and all stages
- Attend departmental writing seminars
- Utilize the free BWH Editorial Service
<<http://research.bwh.harvard.edu/EDIT.HTM>>; 617-525-2547;
181 Longwood Ave in Channing Lab
- Be a reviewer



Authorship

- Decide authorship order **before** the first word is written
- The “Little Red Hen” rule re first authorship
- All authors must have made a substantive contribution to the study and the paper
- The HMS guidelines – “senior authors shalt not steal first authorship” from junior colleagues



Articles, books, chapters

- Original data, peer-reviewed articles are the coin of the academic realm
- Books are time intensive and few are widely read
- Authored books count more than edited books, unless the latter are world famous textbooks
- Most chapters are “dues” you pay to your field or your sponsors – at HMS, they “count” more under the Clinician Teacher criteria than under the Investigator criteria



Advice to young authors

- Don't get discouraged
- Remember, even the professors' articles get rejected – “it's just business”
- Get help from your senior colleagues
- **You can do it!**