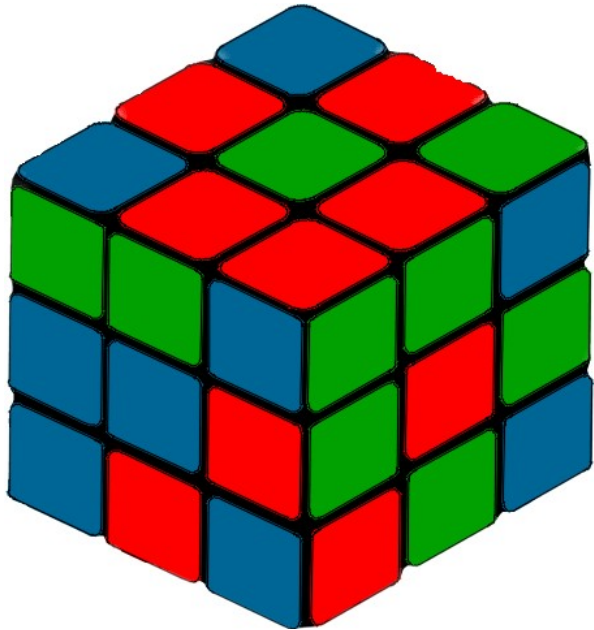


# Scientific Writing

DM ID / ICSSC / FHI

# Publishing is Important: Science and Game?



**DMID/ICSSC**

**Dar es Salaam, Tanzania**

**January 17-22, 2010**

**Kenneth F. Schulz, PhD**

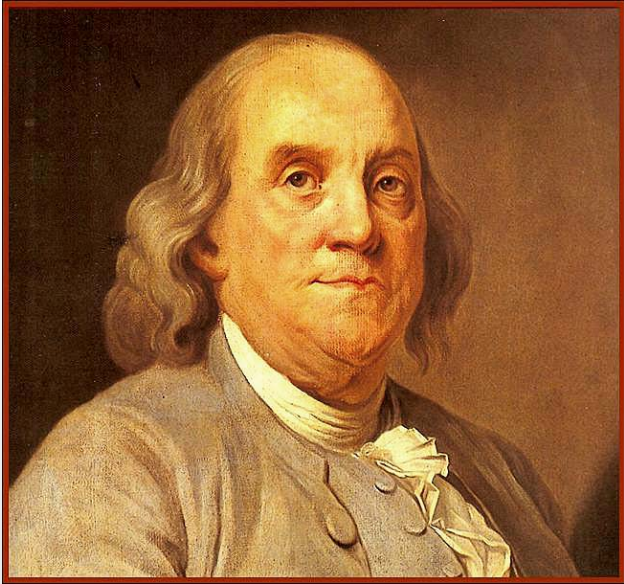
# Disclaimers

- **Not evidence-based (data-free zone)**
  - ❖ **No studies on publication success**
  - ❖ **Based on observation of colleagues**
    - **Like D. Grimes, W. Cates, D. Altman, I Chalmers**
  - ❖ **Being involved in over 200 publications**
  - ❖ **On *The Lancet* Board for 12 years**
  - ❖ **Associate Editor, *Trials***
  - ❖ **Interaction with editors through CONSORT**
- **Heed this advice at your own risk**

# Good News (in my view)

- **Science is paramount, in the long run**
- **Good research is more important than good writing**
  - ❖ **But good research not enough**
  - ❖ **Primping and Packaging is necessary**
- **Yes, publishing is a somewhat of a game**
- **I do not use “game” in a pejorative sense**
  - ❖ **“A way or quality of playing in competition” Webster’s Dictionary**
- **Learning to play will increase probabilities**
  - ❖ **The game may be different in different disciplines**

# Benjamin Franklin



- Declaration of Independence
- Constitution of the U.S.
- Kite experiment
- Ambassador to France, 1776-85
- Franklin Stove
- Bifocals
- Charted the course of Gulf Stream
- Studied mesmerism for the French
  - Introduced blindfolding
  - Published in 1785

*“To study, to finish, to publish”*

# Is Publication Important?

Ontario Department of Health  
MENTAL HEALTH BRANCH



# Publication is Important . . . Critical

## ✦ Publication is the lifeblood of science

- ❖ Peer review
- ❖ Dissemination
- ❖ Archiving

## ✦ Publication

- ❖ Important to medicine
- ❖ Important to public health



# Publication: Important to You?

- **Academic standing in the U.S., including promotions, rests on publications**
- **How about in your country?**
  - ❖ **Becoming more important?**
  - ❖ **For funding on research projects . . . Certainly from NIH . . . Successful publishing is critical**
  - ❖ **Academic life beyond your institution**
  - ❖ **Reprints to your mother?**
- **Important to your organization and you**

# Importance Should Not Lead to Paralysis—You Can Do It

- Importance can lead to “publication paralysis” . . . . . or “writer’s block”
- Overcoming is idiosyncratic
  - ❖ **My suggestions**
- Write most of your paper before you start the study
  - ❖ **Idiotic notion???**
  - ❖ **Protocol facilitates**
  - ❖ **Introduction and methods sections**
  - ❖ **Analytical plan forms the outline of the results**
  - ❖ **Create table shells**

# Quick Hints on Writing

- **Misconception: perfect prose flows from beginning to end**
  - ❖ **Authors do not write the paper in a couple hours**
  - ❖ **Do not construct artificial barriers**
- **Partition into achievable tasks**
  - ❖ **One section at a time, allowing about half a day**
  - ❖ **Isolate yourself from phones, beepers, email**
  - ❖ **Do NOT have to start with the Introduction!**
  - ❖ **Start with any section that you prefer**
  - ❖ **This is not a race**

# Quick Hints on Writing

- **Suggest an outline for your paper**
  - ❖ **By section, outline basic thoughts**
    - **Post-it notes—rearrange and stimulate ideas**
  - ❖ **Write a strong topic sentence for each paragraph**
  - ❖ **Fill in the paragraphs**
- **First draft, type fast**
  - ❖ **Do not perseverate on perfection**
  - ❖ **Do not worry about spelling or syntax**
  - ❖ **Just get your thoughts down**



# Quick Hints on Writing




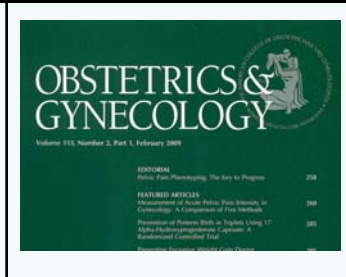

- No good writers, just good rewriters
  - ❖ Expect 10-30 drafts
- Work with our writer/editors to polish prose
- “Blue-dot” every number, every statistic, and every citation
  - ❖ Assiduous attention to detail
  - ❖ Submitted version AND the proofs



# Exhibit Knowledge of the Journal

- **Photocopy and read instructions for authors (IA) and heed it**
  - ❖ **Triple-spaced for N Engl J Med**
  - ❖ **Format: Roman or Arabic numerals for tables**
  - ❖ **Limit on number of authors**
  - ❖ **Journals have different sections, different headings**
    - **Abstracts have different headings**
  - ❖ **Why?**
    - **Follow directions . . . critical for revisions**
    - **Easier editing . . . A big plus**
    - **This looks like one of their manuscripts**
    - **Huge . . . If you don't, they know who rejected it**

# Abstract Section Headings

				
Summary	-----	Abstract	-----	Abstract
	Content			
Background	Objective	Background	Objective	Purpose
	Design, Setting, and Patients			
Methods	-----	Methods	Methods	Methods
	Main Outcome Measures			
Findings	Results	Results	Results	Results
Interpretation	Conclusion	Conclusions	Conclusion	Conclusions

# Exhibit Knowledge of the Journal

- **Structure paper for a specific section of the journal**
  - ❖ **Helps you structure manuscript**
  - ❖ **Flatter the editor – you read the journal**

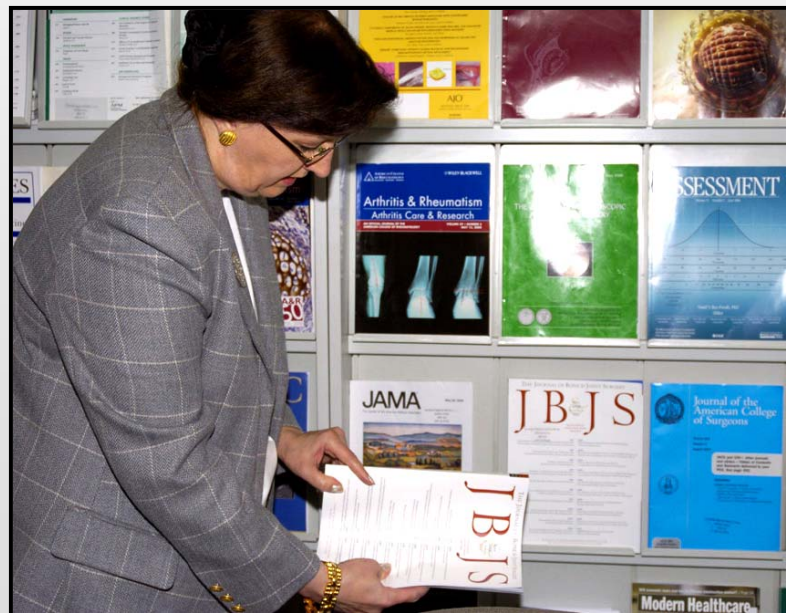


Photo by Chuck Roberts

# Exhibit Knowledge of the Journal

- **Following IA creates a favorable review ambience**
  - ❖ **Editors take themselves seriously**
  - ❖ **Droeges and his deepest secrets**
  - ❖ **Select reviewers who are constructive**
  - ❖ **Select reviewers who might be more favorable**
    - **Massive “rejection recommendation” variance among reviewers, eg, 10% to 90%**
    - **Editors implicitly and explicitly adjust**

# Editor's Pet Peeves



## ➤ Avoid editorial foodstuffs

- ❖ Salami science – slicing/dicing to the lowest unit
- ❖ Hamburger helper – adding more participants

## ➤ Avoid duplicate publication (even a hint)

- ❖ Real estate: location, location, location
- ❖ Gyn surgery: ureter, ureter, ureter
- ❖ Publishing: disclosure, disclosure, disclosure

## ➤ Duplicate publication is fine, if they agree

- ❖ eg., CONSORT and STROBE



# Editor's Pet Peeves

- **Avoid claims of primacy**
  - ❖ **Editors accosted with “letters to editor”**
  - ❖ **Unnecessary**
- **Disclose any potential conflicts of interest**
  - ❖ **Owning stocks**
  - ❖ **Speakers bureaus**
  - ❖ **Research support**
  - ❖ **Consultation**
  - ❖ **Legal work**

**Disclosure, Disclosure, Disclosure**

# Editor's Pet Peeves



- **Understatement the hallmark/essence of scientific writing, as opposed to grant writing**
- **Dilemma**
  - ❖ **Papers impact on advertising revenue**
  - ❖ **Authors like to write long, intricate papers**
    - **Like being brilliant and erudite**
- **Conflicts produce strong editorial direction:**
  - ❖ **“Shorter papers get luckier quicker”**
  - ❖ **Reinforced . . . shorter papers are more understandable**

# **A Completed, Short, Concise Manuscript**

- **Editors and reviewers tend to equate shoddy-looking manuscripts with shoddy research, regardless of truth**
- **Make it look attractive in that journal's format**

# A Completed, Short, Concise Manuscript

- **If they want 4 copies, do not photocopy**
  - ❖ **This is why we have printers**
    - Don't sabotage your good work with poor copying
  - ❖ **Editors -- pinpoint dots in the upper left corner**
  - ❖ **Minor issues in these days of electronic submission**
    - Evens the playing field a bit
    - Takes away advantages of high-quality bond
    - Creates others: consider A4 paper vs. 8.5x11

# Submission: A Great Feeling of Accomplishment

- Celebrate
- Record the submission date on your calendar/diary
  - ❖ **The clock starts ticking**
- Manage your manuscript
  - ❖ **If no response within 6 weeks, start pestering the editorial office**
    - Note!!! The editorial office, not the editor
    - Editorial assistants can field inquiries
- Start becoming familiar with the 'instructions for authors' for the next journal on your priority list

# Strategies for Dealing with Reviewers

- If a journal invites you to recommend reviewers?
  - ❖ **Stack the deck**
    - Friends
    - People who owe you money
  - ❖ **Understand that a few editors use for excluding reviewers!!!**
- Reviewers are not always correct
  - ❖ Remember they produce tons of bad research
  - ❖ You need to gratefully acknowledge their help
    - Do not need to heed all their comments

# Strategies for Dealing with Editors

## ➤ Meet the editor half way

- ❖ **If you disagree with the review, state why**
  - Provide evidence, eg, a reference, if possible
- ❖ **Quickly yield on a stylistic point**
  - Unless it changes the meaning
  - You eventually lose on stylistic points, anyway

## ➤ Respond quickly

- ❖ **Use your momentum**
- ❖ **They love fast responses, even if they are slow**

# Rejection: Common and Part of Science

- Rejection is a necessary part of publication
  - ❖ **Happens to everyone**
- Rosalyn Yalow won the Nobel Prize for Medicine
  - ❖ **Outright rejection letter from the first journal hangs on her office wall**
- I've had plenty, do not take it personally
  - ❖ **Not necessarily a reflection of your research**
- Peer-review process is capricious, irreproducible, and sometimes vindictive and spiteful
  - ❖ **Best system**

# Ruminations on Rejection

## ➤ Reviewers

- ❖ Who produce tons of bad research
- ❖ Who may be a scientific competitor
- ❖ Who may be jealous or antagonistic

## ➤ Editors

- ❖ Frequently draw upon less knowledge than you
  - After 25 years finally understood case-control
- ❖ Overly busy and sometimes irritated
  - Displacement behavior?

# Ruminations on Rejection

- **Why do editors now require permission for acknowledgments in journals?**
  - ❖ **From experience learned that authors tried to “silence” their critics**
- **Keep in mind, your manuscript will be published**
  - ❖ **If it doesn't, you lack . . .**
  - ❖ **25,000+ medical journals – perseverance**

## ➤ **Publication is a probabilistic exercise**

- ❖ **The Lancet** **5-7%**
- ❖ **JAMA** **10%**
- ❖ **NEJM** **8-10%**
- ❖ **Specialty journals** **20-50%**
- ❖ **Your XXX** **~95%**
- ❖ **Your inbox** **0%**

# Publication is a probabilistic exercise

<u>Journal sequence</u>	<u>Prob. rejection</u>	<u>Cum Prob Accept</u>
The Lancet	95%	5%
JAMA	90%	14%
Green Journal	80%	32%
Specialty	50%	66%
Your XXX	5%	98%

# **If a manuscript is rejected, resubmit**

- **Remember: Publication is a probabilistic exercise**
- **Remember: Rosalyn Yalow**
- **Any inbox has higher probability than yours**
- **Resubmit the manuscript**
  - ❖ **Move it to someone else's inbox**

# Remember

- **Remember!! Do not have to be a great writer**
  - ❖ **More important to be a great researcher**
  - ❖ **For scientific writing, just better than others**
    - **Campers and bear**
    - ***You can do it***

**Thanks**

**Publishing is Important  
END**

**K. F. Schulz**