Seven Steps to Mentor and Motivate the Novice Author to Write for the Clinical Literature

Linda S. Nield, MD
Professor of Pediatrics

WVCTSI Lecture
October 24, 2014
Disclosures

• None
Objectives

- Review 7 practical steps to mentor and motivate the novice author to write for the clinical literature
- Use the case report as the model piece of literature, and the mentoring and motivational suggestions can be applied more broadly
- Spark audience members’ own ideas for case report topics by providing sample published case reports by novice authors
- Enhance multiple competencies, especially practice based learning and improvement (PBLI), communication skills and medical knowledge
Reference for the Seven Steps

Reference for Preparing Manuscripts

Reference for Preparing Abstracts

• Pierson DJ. How to write an abstract that will be accepted for presentation at a national meeting. *Respiratory Care*. 2004;49(10):1206-1212.
Mentors....

• Should encourage ALL types of scholarly activity
• Should support the writing of case reports and other areas of evidence based medicine (EBM)
• Should use our strengths to develop strengths of others
Self-Assessment of Your Mentoring

• Do you promote good work in novices?
• Do you encourage scholarly activity?
  – If yes, are your practices effective?
• If not, why?
  – No time?
  – No interest?
  – No concern?
  – No pathway?

Your Faculty Should be Posed the Same Questions
In need of a pathway….

- Shortages of good mentors “results from a collective lack of awareness about what it means to mentor well—lack of an adequate understanding of pathways that successfully foster excellence…."

7 Step Pathway
Scholarly Activity: Faculty

Faculty should also demonstrate scholarship through one or more of the following:

- Peer-reviewed funding
- Publication of original research, review articles in peer-reviewed journals, book chapters
- Publication of case reports
- Participation in national committees or educational organizations

Scholarly Activity: Faculty

Faculty should also demonstrate scholarship through one or more of the following:

- Peer-reviewed funding
- Publication of original research, review articles in peer-reviewed journals, book chapters
- Publication of case reports
- Participation in national committees or educational organizations

Scholarly Activity: Faculty

Faculty should encourage and support residents in scholarly activity

Scholarly Activity: Residents

Residents should participate in scholarly activity.

The sponsoring institution and program should allocate adequate educational resources to facilitate resident involvement in scholarly activities.

Scholarly Activity: Students

- Not required
Case Reports: Ideal Starting Point

• If one works with patients, one can write reports

• Relatively more manageable than other parts of pyramid
  – Shorter; usually word, table and reference limits
  – No statistical analysis required
  – No funding required
  – No lab/tech support required
Case Reports: Ideal Starting Point

- Relatively small investment, before committing to even larger project
- Are you an effective mentor/mentee team?
Case Reports TAKE LESS TIME

• Take less time to complete
  – “Residents spent more total time (200 vs. 50 hours), elective time (24 vs. 0 hours), and personal time (65 vs. 35 hours) than those presenting clinical vignettes”

Johns Hopkins
N=73 Residents
  -39 Case Reports
  -34 Original Research

Barriers to Participation
Results of Two Reports

- 40%: no resident time
- 32%: no mentor
- 18%: no faculty time
- 13%: no tech support
- 6%: no funds

- 79%: no time
- 45%: no research skills
- 44%: lack of curriculum
- 35%: no tech support
- 35%: no funds
- 25%: no mentor


# Maturation of a Mentor

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Case Reports*</td>
<td>22 Case Reports*</td>
</tr>
<tr>
<td></td>
<td>+ Others**</td>
</tr>
</tbody>
</table>

*Published in Journals Catalogued in Medline

**Other Venues
Numbers of Novice Authors

• 1 medical students
• 2 nurse practitioners
• 13 residents
• 8 faculty (instructor or assistant professor)

Most of the publications by these authors were their first ones
1. Choose Topic
2. Choose Venue
3. Set Deadlines
4. Research
5. Write
6. Finalize
7. Submit
Step 1

1. Choose Topic
Step 1: Choose a Topic

IV.A.5.c): Practice-based learning and improvement

IV.A.5.c).(8): Participate in the education of patients, families, students, residents and other health professionals

Step 1: Choose a Topic

• Not adequately addressed in the literature (and of interest to the novice)
  – Mentor’s experience and literature search can determine if the topic is adequately addressed already

Side Note: Sub-heading under this step is “Choose the Right Novice”
Step 1: Choose a Topic

- Case report should have at least one of these features:
  - Rare disorder
  - Unusual course for a common disorder
  - Vibrant or unconventional image

Notes:
- less stringent criteria than what is listed in high impact journals
- consider goals of novice author
Novices’ Goals

• Increase one’s own knowledge (medical knowledge)
• Research and assimilate scientific works (PBLI)
• Teach others (PBLI)
• Hone writing skills (communication)
• Have a successful scholarly activity experience (PBLI)
Positive Effects on Residency

• Residents’ participation in scholarly activities is associated with high levels of satisfaction with residency training

• Anecdotal experience: Joy

Feature 1

RARE DISORDER
Rare Disorders


First reported case of solitary fibrous tumor of the kidney in a child
Rare Disorders


ROHHAD

}Rapid-onset obesity

Hypothalamic dysfunction

Hypoventilation

}Autonomic dysregulation
Rare Disorders


![Cryopyrin defect images]
Rare Disorders

Rare Disorders
Motivate Colleagues

Medical Educators who are Especially Productive in their Scholarly Activities..

- Intrinsic rather than extrinsic motivation
- Collaborate with colleagues
- Personal qualities of patience and organization

FEATURE 2

UNUSUAL COURSE FOR A COMMON DISORDER
Unusual Presentation

Unusual Presentation
Motivate Colleagues

Unusual Presentation
Collaborate With Other Specialists

Feature 3

VIBRANT OR UNCONVENTIONAL IMAGE
The Drooling Adolescent

Interesting Scans

  2009;48(6):6902. (*Teratoma*)
Interesting Radiographs


Quote from Editor: “The radiograph makes this case.”
More about images.....

• Keep a camera available
• ALWAYS obtain signed consent and have an organized way to store the consents
• Even if a case will not get published, the educator may use the case for teaching, since images are good teaching tools
More about Consent.....

• Obtain even when not using an image
• Compulsory part of some journals’ submission process
• Keep consent forms available
Step 1: Choose a Topic

- **Mentors**, Be on the Look-Out for topics which are not adequately addressed in the literature; and cases with the following features:
  - Rare disorder
  - Unusual course for a common disorder
  - Vibrant or unconventional images

- Ensure proper consent is obtained and filed
Step 2

2. Choose Venue

1. Choose Topic
Step 2: Choose a Venue

• Early in the process, so novice can read and adhere to the “submission instructions”
  – How many words?
  – How many references?
  – How many images or tables?
Step 2: Choose a Venue

• Through the mentor’s familiarity with the literature, a venue can be chosen:
  – Does it include case reports as one of its features?
  – Does it have special section for trainees?
  – Is it peer-reviewed? Is it catalogued on Medline?
  – Will it reach others?
  – Are these features important?
    • Impact Factors
    • Promotion and Tenure Committee Considerations
Step 2: Choose a Venue

• Pitfall:

In regards to case reports, “a disadvantage is that many journals do not publish case reports”

Anesthesia and Analgesia....

• “....describe ‘truly exceptional’ cases making an important teaching point or scientific observation”
• “....unusual and instructive cases, novel anesthetic techniques, novel use of equipment, or new information...”
• “....accepts approx 10% of submitted case reports”

Anesthesia and Analgesia Summary of Changes to Authors Guide. Available at: http://www.aaeditor.org/GuideforAuthors.pdf
Step 2: Choose a Venue

• **Mentors** (through familiarity with the literature) must choose an appropriate venue

• Serve as a **Role Model** as one who reads and critically appraises the medical literature so mentee picks-up on these skills and then can choose venue
Step 3

1. Choose Topic
2. Choose Venue
3. Set Deadlines
Step 3: Set Deadlines

• And stick to those deadlines
• All involved with the writing project must keep track of their own deadlines
• Use pop-up reminders on email/phones
• Commit 1-2 hours/week to scholarly activity
Step 3: Set Deadlines

• **Mentor** has crucial role in this step
  – Send “Friendly Deadline Reminders”
  – Be Task Master….consider breaking into smaller tasks
  – Check frequently on progress
  – Provide guidance, allow freedom

Step 4

1. Choose Topic
2. Choose Venue
3. Set Deadlines
4. Research
Step 4: Research

• Use On-Line Resources
• Don’t Assume Novice Knows How to Perform Literature Search, may need to:
  • Teach the Novice
  • Refer to a Librarian
  • Refer to take On-Line Tutorials
Step 4: Research

The Institution and the Program

II.E. Medical Information Access

Residents must have ready access to specialty-specific and other appropriate reference material in print or electronic format.

Electronic medical literature databases with search capabilities should be available.

Step 4: Research

For Residents

IV.A.5.c): Practice-based learning and improvement

IV.A.5.c.(6): Locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems

IV.A.5.c.(7): Use information technology to optimize learning

Step 4: Research

- **Mentor** can over-see this step, provide guidance and education about literature searches and peruse the literature search for adequacy
  - Again...provide guidance, allow freedom
1. Choose Topic
2. Choose Venue
3. Set Deadlines
4. Research
5. Write
Step 5: Write

IV.A.5.d): Interpersonal and communication skills - effective exchange of information

IV.A.5.d)(1): Communicate effectively with patients, family and the public

IVA.5.d)(2): Communicate effectively with physicians and others

Step 5: Write

- Break the writing into two smaller tasks, to tackle the two main parts of a case report:
  - Patient Presentation
  - Discussion
Part 1: Presentation

• Novice first writes about the medical experience of the patient
Part 1: Presentation

• Share these points with the novice author concerning the writing of the presentation:
  – No identifiable information
  – Spell out all abbreviations initially
  – Include units for laboratory results
  – Use generic medication names
  – Be concise
  – Visit “Language Usage Weblog” at http://languagetips.wordpress.com
Part 2: Discussion

Information which may be included in Discussion Section of a Case Report

I. Introduction:
   A. Brief background of the topic
   B. Purpose of the written work

II. Etiology/Pathogenesis

III. Epidemiology

IV. Clinical Presentation

V. Diagnostic Evaluation
   A. History
   B. Laboratory Studies
   C. Radiographic Studies
   D. Other

VI. Treatment

V. References
Step 5: Write

• Novice author can be advised to categorize all of the references obtained to fit into one of the discussion sections

etiology    epidemiology    treatment
Step 5: Write

• More writing tips to share with novice author:
  – No slang or exaggerated language
  – Avoid use of exclamation points
  – If start a sentence with a number, write out the name of the number
  – Avoid use of quotations
  – Use proper grammar and spelling
  – Visit “Language Usage Weblog” at http://languagetips.wordpress.com
Step 5: Write (Edit, Write, Edit...)

- This step also includes ping-ponging of manuscript from novice author to more senior author.

Use “Track Changes”

Use expert and non-expert editors

If multiple editors, review sequentially
Step 5: Write

• Know the laws of plagiarism
  – Must paraphrase and use own words
  – Use quotes if more than 6 words are taken directly from another source
  – If not sure if information is common knowledge, then should cite the information
    • Create reference list during writing process and keep track with parenthetical citations (manual vs. computer program)
  – DO NOT cut and paste information
Plagiarism and Novice Authors

• “Evidence of plagiarism was found in 5.2% of essays”
  – Personal statements for residency applications were examined for plagiarism using a specialized software
  – A match of more than 10% of the written word was considered plagiarism

Plagiarism and Novice Authors

• “...only 9% of students did not plagiarize at all and 34% plagiarized less than 10% of text” in medical essays
• Identical inspirational stories in personal statements from 2 applicants to a geriatric fellowship program in Florida


More About Plagiarism

“Plagiarism Checking
We request that authors screen their manuscripts for plagiarism before submission. We don't question the honesty of you, our authors. Almost all plagiarism is accidental, and we make this request to protect you. Please indicate how you screened your manuscript:

- ArticleChecker (www.articlechecker.com)
- CrossCheck (www.ithenticate.com/)
- CrossRef (www.crossrefme.com)
- DocCop (www.doccop.com)
- DupliChecker (www.duplichecker.com)
- Plagiarisma (www.plagiarisma.net)
- Plagiarism Checker (www.searchenginereports.net/articlecheck.aspx)
- The Plagiarism Checker (www.Dustball.com/cs/plagiarism.checker)
- Other
- I did not screen for plagiarism.”

Pediatric Anesthesia Author Guidelines. Available at:
http://www.wiley.com/bw/submit.asp?ref=1155-5645&site=1
Step 5: Write

- **Mentor** has crucial role of
  - Participating in the ping-ponging; Editing the work
  - Indicating where to insert references
  - Checking on progress of writing often
  - Providing both intellectual freedom and guidance
Beware of a Bad Mentor

• Being Neglectful of Mentee
  – Didn’t give enough advice or guidance
  – Didn’t help
  – No time
  – Didn’t offer feedback
  – Didn’t take enough interest

Step 6

1. Choose Topic
2. Choose Venue
3. Set Deadlines
4. Research
5. Write
6. Finalize
Step 6: Finalize

- Create the final bibliography
- Refer to “submission instructions” for method
- Make sure the citations and final bibliography are complete and correct
Step 6: Finalize

• Decide who has earned authorship
  – Should only include individuals who have truly contributed a substantial amount of work

<table>
<thead>
<tr>
<th>AUTHOR CONTRIBUTION CHECKLIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 (MANDATORY)</td>
</tr>
<tr>
<td>❑ Conception and design</td>
</tr>
<tr>
<td>❑ Data collection</td>
</tr>
<tr>
<td>❑ Analysis and interpretation</td>
</tr>
<tr>
<td>Category 2 (MANDATORY)</td>
</tr>
<tr>
<td>❑ Writing the article</td>
</tr>
<tr>
<td>❑ Critical revision of the article</td>
</tr>
<tr>
<td>Category 3 (OPTIONAL)</td>
</tr>
<tr>
<td>❑ Statistical expertise</td>
</tr>
<tr>
<td>❑ Obtaining funding</td>
</tr>
<tr>
<td>❑ Administrative, technical, or material support</td>
</tr>
<tr>
<td>❑ Supervision</td>
</tr>
</tbody>
</table>

(Pediatric Annals)
Step 6: Finalize

• Consider an “acknowledgement”

“Dr Nield would like to thank Jane Rossi and Matthew W. Lively, DO for their expert review of this feature. Ms. Rossi is a physical therapist and Dr Lively is a sports medicine physician at WVU.”

Step 6: Finalize
Advice for Mentee about Mentor

• “pick a supervisor who is a timely finisher....”
• Questions to ask yourself:
  – Do you finish all work-related projects or assignments in a timely manner?
  – Do you answer emails and other correspondence in a timely manner?
  – Are you considered a dependable attending?

Detsky ME and Detsky AS. Encouraging medical students to do research and write papers. *CMAJ.* 2007;176(12):1719-1721.
Step 6: Finalize

- **Mentor** must make sure
  - The citations and final bibliography are complete and correct
  - Proper authorship has been determined
  - Be a TIMELY FINISHER!
Step 7

1. Choose Topic
2. Choose Venue
3. Set Deadlines
4. Research
5. Write
6. Finalize
7. Submit
Step 7: Submit

• Most (All?) journals have an on-line submission process
  – Should have all the pieces to plug-in since reviewed the submission instructions in Step 2
    • Title page, abstract, keywords, headings....

• All of the requirements listed in the submission instructions must be fulfilled
Step 7: Submit

• Write Good Cover Letter
  – Mentor should help a good bit with this
  – Chance to sell why this case report is publishable
    • Convince the editor that your work is a significant contribution to the field
  – Mention the senior author’s experience
  – Mention conflicts of interest
  – Keep it brief
Step 7: Submit

• Novice author must be instructed to NOT submit to more than one venue at a time

• Then, Novice waits for the decision
  – Acceptance (Rare)
  – Acceptance with Revisions
  – Rejection
If Rejected….

1. Choose New Venue
2. Set New Deadlines
3. Research prn
4. Re-WRITE
5. Finalize
6. Submit
7. Try Again!

“It is hard to fail, but it is worse never to have tried to succeed.”
- Theodore Roosevelt
If not in journal cited in Medline..

• Consider medical internet sites or journals, presentations at professional meetings with student and resident sections, etc...
• Create other opportunities
• Still can be considered SUCCESSFUL
  – Allowed honing of writing skills
  – Allowed researching a topic in depth
  – May reach numerous readers
Medical Internet Sites

- Peer-reviewed medical internet sites

  Example: Pediatric Critical Care Medicine: pedsccm.org

- Gadikota K, Valina M, Smith A. Critical appraisal of “A Randomized, Controlled Trial of Heparin Versus Placebo Infusion to Prolong the Usability of Peripherally Placed Percutaneous Central Venous Catheters (PCVCs) in Neonates: The HIP (Heparin Infusion for PCVC) Study.” 2010.

- Valina M, Thammasitboon S. Critical appraisal of “A Randomized, controlled trial of heparin versus placebo infusion to prolong the usability of peripherally placed percutaneous central venous catheters in neonates.” 2010.


Creating Other Opportunities

• State Medical Associations
• Own Academic Institution
Martin E Weisse Resident Research Competition

• All Pediatric or Med/Peds Residents in the state of WV can participate
• Sponsored by WV Chapter of AAP
• Submission of abstracts in two categories: Case Report and Original Research
• Opportunities for Oral and Poster Presentation
• Monetary awards (more $$ for Original Research)
WVU GME Week Forum

• One day dedicated to oral and poster presentations by residents and fellows

• Case Reports and Non-Case Reports, Clinical and Educational Categories
Step 7: Submit

• **Mentor** over-sees this entire step, especially abstract writing and cover letter
  – Recommend for Mentor to briefly review the submission instructions with novice author
  – Have a back-up plan if rejected
  – Be encouraging to re-try another venue
Step 7: Submit

- **Mentor** can be CREATIVE and CREATE opportunities for mentees to become involved in professional activities

Remember the 7 Steps

1. Choose a topic
2. Choose a venue
3. Set deadlines
4. Research
5. Write
6. Finalize
7. Submit
Discussion Questions

• How have you motivated your novice authors?
• What pitfalls and solutions have you encountered in your publication experiences that would be useful in mentoring the novice?
• What professional opportunities have you created for your novice authors to share their scholarly activity accomplishments?
Summary

• Participation in scholarly activity is a Common Program Requirement, and case reports are a type of scholarly activity
• Novice authors can be successful at writing case reports
• Faculty should encourage the novice author
• Use the 7 steps as mentoring pathway
• Write-up those interesting cases!
Discussion Questions

• How have you motivated your novice authors?
• What pitfalls and solutions have you encountered in your publication experiences that would be useful in mentoring the novice?
• What professional opportunities have you created for your novice authors to share their scholarly activity accomplishments?
The End
References (in order of appearance)


3. Pierson DJ. How to write an abstract that will be accepted for presentation at a national meeting. *Respiratory Care.* 2004;49(10):1206-1212.


5. ACGME Common Program Requirements Effective July 1, 2011 Available at [www.acgme.org](http://www.acgme.org).


References (in order of appearance)


22. *Anesthesia and Analgesia* Summary of Changes to Authors Guide.


24. Thomas Reuters *Journal Citation Reports*.


30. “Language Usage Weblog.” Available at: [http://languagetips.wordpress.com](http://languagetips.wordpress.com).
References (in order of appearance)


42. Sirikonda N. Ketogenic diete: rapid onset of selenium deficiency induced cardiac decompensation. Poster presentation, 2011.


References (in order of appearance)


37. Detsky ME and Detsky AS. Encouraging medical students to do research and write papers. CMAJ. 2007;176(12):1719-1721.

38. Gadikota K, Valina M, Smith A. Critical appraisal of “A Randomized, Controlled Trial of Heparin Versus Placebo Infusion to Prolong the Usability of Peripherally Placed Percutaneous Central Venous Catheters (PCVCs) in Neonates: The HIP (Heparin Infusion for PCVC) Study.” 2010. Available at Pediatric Critical Care Medicine: pedsccm.org
The End