

Building Capacity for Scholarship in your Teaching Practice: Tips for Engaging Learners

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Disclosures

None

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Goals for this session

1

Define scholarship
in the broadest
sense

2

Introduce ideas and
concepts for
engaging learners

3

Identify ways of
picking low-hanging
fruit for publication
success

4

Stimulate interest
in preparing
scholarly work for
dissemination

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Forms of Scholarship


Scholarship may take the form of peer-reviewed publications, invited publications in journals, books (or chapters of books), reports for agencies or organizations, significant public communications for education or advocacy, inventions or patents, laws or regulations, institutional or professional policies, clinical or professional guidelines, curricula, syllabi, or any equivalent online or information technology-based materials, among others.

-KPSOM Faculty Handbook

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Question for Reflection





What is your academic phenotype?

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Four Different Types of Scholarship

-  **Discovery** = traditional research (basic/clin sci, epidemiology, policy, bioinformatics) using scientific method
-  **Teaching** = developing courses, curricula, educ models, approaches to interprofessional education. Using best practices in a systematic way based on lit
-  **Integration** = synthesis of knowledge → new resources (reviews, book chapters, guidelines)
-  **Application** = apply new knowledge to different clinical environments, QI, disseminating innovative practices (implementation science)

Colbert-Getz J, Shaffer K, Chow C. Taking the Scholarly Practice One Step Further by Producing Education Scholarship. *Acad Med.* 2021 Apr 1;96(4):610.

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Why figure out your academic phenotype?

-  Helps you turn what you do well into a tangible product
-  Determine what products align well with this
-  This is the **secret sauce** to academic productivity

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Example: Preparing a Commentary or Perspective

Think about a topic for which *knowledge translation* is needed

TEACHING MOMENT

OCCASION D'ENSEIGNEMENT

Teaching safe and responsible opioid prescribing for chronic pain

Payam Sazegar MD CCFP(AM) FCFP

The opioid epidemic is a global problem and Canada has one of the highest rates of opioid-related deaths in the world. A 2013 report from

Provide essential knowledge on core topics
Many online safe-prescribing curricula exist, including those developed by professional medical associations.

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Why is it a good idea to publish?

- It is important to advance medical knowledge
- Publishing is “academic currency” → build credibility
- It is your Intellectual Property / legacy → get credit for work you’ve done
- Sets you apart from the pack
- Increases your depth and breadth as a clinician
- Leadership development
- Find joy or meaning in work
- Gain skills in Evidence Based Medicine (education by peer reviewers)
- CME credits

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Publication is a universal currency in academia

Bronze: Podcasts, Blogs, Newsletters, Magazines, Social Media

→ **Silver:** Commentaries/Perspectives, Reviews (eg AFP, UpToDate), Case Series/Reports, Editorials/Letter to Editor

Gold: original research publications, grants

Diamond: the randomized, double-blind, placebo-controlled clinical trial

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Barriers to Publishing

- Not enough time
- Can't get started (space)
- Not sure what to write about
- Lose momentum when other things get in the way
- Fear of rejection
- Lack of expertise (skill sets, training)
- Data Management / Statistics
- Funding / IRB
- Lack of interest
- Lack of Mentorship

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Strive for **SILVER** at a minimum

Many of these are indexed in PubMed
Higher acceptance rate than traditional research
Most of this is formulaic

- Clinical Imaging
- AFP Photo Quiz
- Case Reports
- Conference Abstract
- Letter to Editor (w/in 1 month)
- Editorial
- Journal Newsletter
- Review Article
- Perspective/Commentary
- Workshop for a national meeting

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*Success of a scholarly
project often depends on a
student / resident having a
special interest in the topic
& how well the project
**capitalizes on their
strengths***

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Case Study:

**Engaging medical
students in practice-
based quality
improvement projects**

Population Based Medicine projects
at KP San Diego Family Medicine
Residency Program



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Examples of Value-Added Medical Education

- Population health management – outreach (cancer/vaccinations)
- Chronic disease management (eg DM metrics)
- Clinic quality improvement activities → workflows (rooming/BP/etc)
- Health coaches (long term)
- Patient educators
- Motivational interviewing for behavior change during clinic appointments

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Rationale for Population Based Medicine (PBM) education program - 2019

- KP has maintained a robust system of preventative care and population-based medicine for decades, but QI work had not traditionally been an established requirement of our Family Medicine student clerkship.
- Family Medicine educators need to: empower learners with evidence-based knowledge, cultivate inquiry skills and provide leadership experiences conducive to 21st century medical practice.

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Rationale for Population Based Medicine (PBM) education program - 2019

- Future physicians will require a strong foundation in systems-based practice and health system science.
- Acquisition of skills in inquiry and QI are not easily achieved through the standard clerkship curriculum of office encounters, didactic presentations and exam preparation.

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PBM program: Short Term goals

- Teach students about patient centered communication
- Provide insights into why care gaps might exist and give opportunities to address them.
- Provide opportunity for practice-based research and education within the QI structure of our Family Medicine Center.
- Provide students a stake in our health care delivery and opportunity to develop leadership skills.
- Build a bridge between our organization's expanding work in population health and expanding role in undergraduate medical education.

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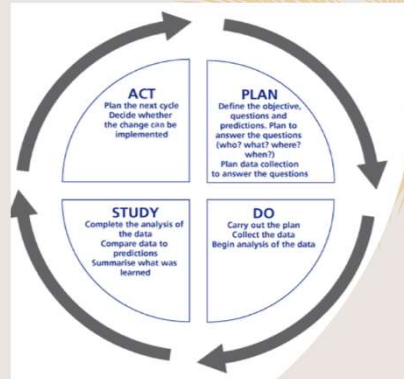
Population Based Medicine: The Challenge

- Many patients overdue for preventive care do not come in for appointments
- Underrepresented minority groups are less likely to receive preventive care.
- Acquiring skills in PBM is part of the core competency of Systems Based Practice as well as the Triple/Quadruple Aim of health care → *educational need* is present

Design of PBM pilot

- Elicit ideas/suggestions/concerns from teaching faculty
- Started with our 4-week block rotations (MS4 Sub-Internship)
- Week 1: Planning phase
- Week 3: 1-2 Half Days of protected time to work on PBM
- Week 4: Student gives oral presentation ~ 15 min

Week 1 of Elective: Planning Phase



Medical students learn the basic Quality Improvement process (a PDSA cycle).

Choose a project of interest to them (shark tank)

Develop SMART goals

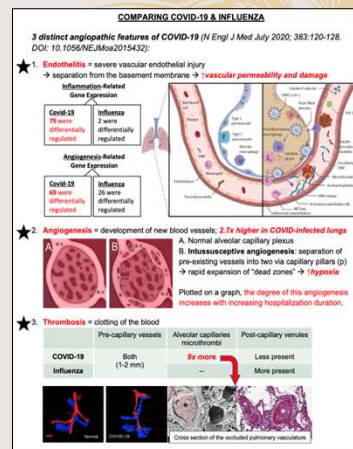
Perform Root Cause Analysis as part of planning phase

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Project #1: Flu Tent Education about Covid-19 vs Seasonal Flu



The Intervention Pt 1: Opening Question

- + What similarities and differences between COVID-19 & influenza do you know?
- + Do you know anyone who does not regularly get vaccinated?

Student Slides
October 2020

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COVID Education to Flu Vaccine Recipients

Qualitative Findings & Outcomes

- + n=24, ages ranging from 23-67
- + Participants generally focused on the similarities and differences in terms of symptomatology, mainly "the severity" and "loss of smell/taste."
- + 2 were aware of the cardiorespiratory protective benefit of the flu shot for high-risk patients because they themselves are high-risk.
- + 4 have friends or family members who do not regularly get vaccinated.
- + 5 were previously ambivalent towards vaccinations.
- + All 24 reported learning something new and insightful and were able to recap the key points and concepts from the handout back to me.

Student Slides
October 2020

Student Poster at STFM 2021 Annual Spring Conference (J. Kang)

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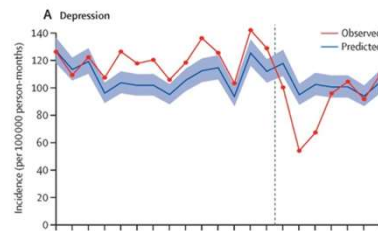


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Project #2: Screening for Post-Covid Depression

During COVID-19, there was decreased incidence of depression diagnoses in primary-care

- There may be people with undiagnosed and untreated depression and other mental illness



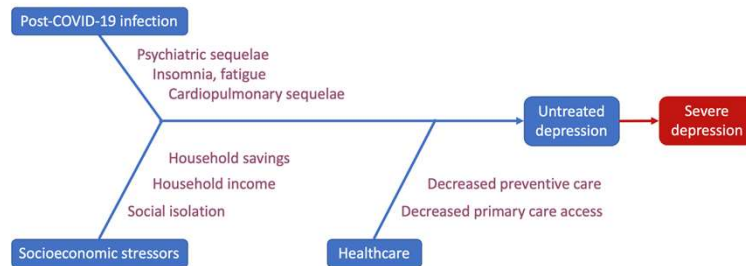
Carr MJ, Steeg S, Webb RT, et al. Effect of the COVID-19 pandemic on primary care-recorded mental illness and self-harm episodes in the UK: a population-based cohort study. *The Lancet Public Health*. 2021;16(2):e124-e135. doi:10.1016/S2468-2667(20)30288-7

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Undiagnosed and untreated depression during a pandemic



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Screening for Post-Covid Depression

- *Intervention:* screen patients with history of Covid-19 infection and no history of MDD
- 2 step strategy: pre-screen with PHQ-2 and then PHQ-9 if score ≥ 3
- **PHQ-9 score 1-4:** provided resources such as CALM App and Health Education classes
- **PHQ-9 score 5+:** offer Behavioral Medicine and route to FMR behaviorist and PCP

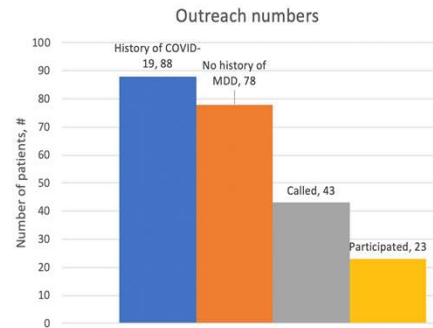
Student Slides
Sept 2021

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- Student identified 88 patients on PCP panels with previous history of positive COVID-19 test result
- 78 patients without history of MDD or current SSRI use
- 43 patients called
- 23 patients answered and were willing to participate

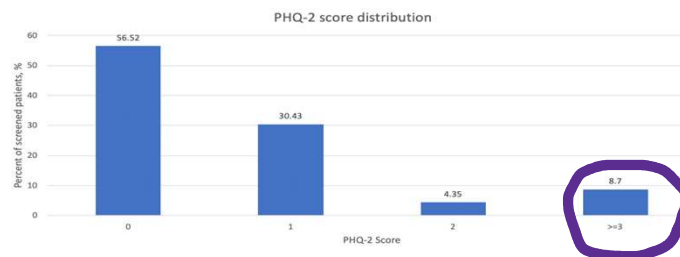


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Results: in patients with history of COVID-19, rate of depression was 8.7%



The 2 patients with PHQ-2 score ≥ 3 had moderate-severe depression (PHQ-9 scores of 15 and 18). ONE patient endorsed passive suicidal ideation. Both referred to on-site Behavioral Medicine provider and PCP notified for ongoing treatment

Poster presented at STFM 2022 Annual Spring Conference (D. Tran)

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General Lessons Learned from Population Health QI Projects with Visiting Medical Students (2019-2021)

- Enthusiasm of medical students was harnessed for creative solutions to challenging, yet common, clinical problems
- Provided **enhanced educational value to learners** (pursue interests, learn QI)
- Provided faculty **a wider lens through which they could evaluate** the students' interests/clinical competencies/potential fit for our residency program
- Improved clinic workflow and function.
- The amount of actual time and effort required by our clinical faculty was small as our PBM pilot projects were integrated into the overall clinic workflow, which included nursing and administrative teams.

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Recent student case report

Student: I want to be an Ophthalmologist. I don't have much research experience. I will take a gap year.

Preceptor: Are you interested in writing a case report for publication? I have a great eye case for you.

Student: Yes, please.

Preceptor: Look at these journals that publish case reports. Focus on these 1-2 journals first. Send me a draft that complies with Author Instructions (word limits / etc)

FULL TEXT ARTICLE

Herpes Zoster Ophthalmicus Associated with Oculomotor Nerve Palsy

Tonya Lee BS, Matthew C. Carnahan MD and Payam Sazegar MD
American Journal of Medicine, The, 2022-02-01, Volume 135, Issue 2, Pages e47-e48, Copyright © 2021 Elsevier Inc.

Case Presentation

A 67-year-old African American male presented with a 1-week history of left eye pain with conjunctival erythema, a painful rash on his left forehead, headache, and 2 days of diplopia. The physical examination was notable for conjunctival injection of the left eye, left upper eyelid ptosis, and crusting forehead skin lesions. The patient was unable to maintain gaze medially or laterally; attempts at prolonged gaze resulted

The American Journal of Medicine, The
Volume 135, Issue 2
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Example: Preparing a Case Report

- Read Author Guidelines for journals that publish case reports
Eg. Permanente Journal, American Journal of Medicine, Southern Medical Journal
- Word count is variable
- Highly motivated students applying to competitive specialties
- Think of 2-3 key points from the case
- Qs to ask: (<https://med-fsu.libguides.com/publishing>)
 - Who is the Publisher?
 - Fee?
 - PubMed?
 - Open Access?



Tips for Writing and Publishing

Tip #1: Know your end goal

- What journal to choose?

Eg: *Am Fam Physician* vs *Ann Fam Med* vs *Fam Med*

- Talk to 3+ different colleagues
- Read the table of contents of journal to see what kind of articles they publish
- Use **JANE** (Journal/Author Name Estimator) for Abstract. Then start with list of 4-5 journals
- Identify the formula (journal website, previous articles, common words/trends/structure) to crack the code

jane.biosemantics.org

Jane
Journal/Author Name Estimator

Insert your title and/or abstract here: (or, click [here](#) to search using keywords)

Title: Family Medicine Resident and Faculty Perceptions about the Strengths and Limitations of Telemedicine Training
Background and Objectives: Telemedicine is now a highly utilized form of primary care, requiring medical schools and residency programs to develop standardized telemedicine training to meet the educational needs. This study highlights specific areas of clinical teaching and faculty development regarded as high value at a family medicine (FM) residency program.
Methods: A needs assessment survey instrument was developed based on ACGME milestones and circulated to program faculty and residents at a suburban FM residency program. Survey questions were each mapped to ACGME core competencies by study authors to identify common themes. Two-sample t-test was performed to compare perceived self-confidence in faculty assessment and resident performance of key telemedicine clinical skills.
Results: A total of 29 respondents (15 faculty; 14 residents) completed the survey. Both residents and faculty expressed comfort with obtaining a focused history, ruling out red flags, formulating a differential diagnosis, and planning follow up care. Faculty reported confidence in ability to provide feedback about medical knowledge and clinical decision making, but also identified a need for better feedback tools. Both faculty and residents identified a need for better teaching of the telemedicine physical exam. Resident interest in additional

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Tip #2: Look for the low hanging fruit or least publishable unit?

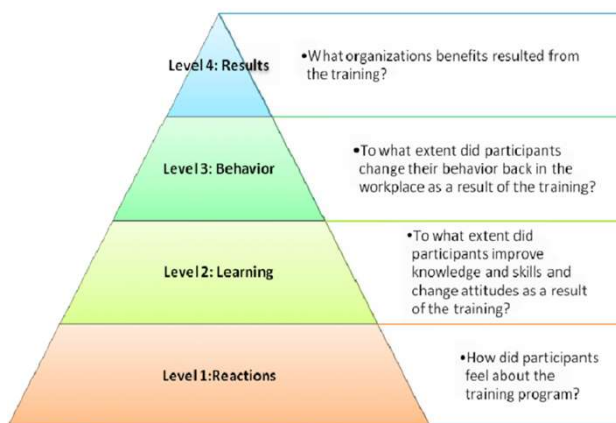
Short (eg 200 words, 500 words, 1200 words)

Little to no “research” required – good background knowledge and insight

- Eg. Letter to the Editor: contains insights that extend the discussion and limited to 1-2 key points.

Focus on the most novel part of your project

Tip #3: Know the *Kirkpatrick Model of Assessment*



Tip #4: Find time + mentorship

Practice writing

Find a mentor (FMR, non-FM, STFM, University)

Schedule time to write (25 min) & make it a routine
Pomodoro technique






Be a Peer Reviewer: pairs you with mentors/leaders

Go to a writing workshop or bring one to your institution

STFM offers free virtual coaching, webinars, fac dev resources

WHAT IS THE POMODORO TECHNIQUE?

A method for staying focused and mentally fresh

- STEP 1**  Pick a task
- STEP 2**  Set a 25-minute timer
- STEP 3**  Work on your task until the time is up
- STEP 4**  Take a 5 minute break
- STEP 5**  Every 4 pomodoros, take a longer 15-30 minute break.

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“A writer who waits for ideal conditions under which to work will die without putting a word on paper.”

-E.B. White

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Tip #5: Identify causes of procrastination

- If you're feeling overwhelmed with the process, get help chunking it into smaller pieces
- Collaborate with experienced colleagues
- Schedule time to write
- Write as you go in bits (vs "I will finish this project then write it up")
- Finding **Accountability partners** or **Writing Accountability Groups** are a common best practice (set writing goals)

Tip #6: Don't be discouraged by rejection

- Read Author Instructions and follow them precisely
- Ask Editor for feedback
- Publishing requires a good pitch and spin
- Ask colleagues for suggestions
- Use JANE to find a short list of other publications
- *Accept with **Major Revisions*** = great news

Conference Presentations More Likely to Get Published if...

(From STFM 2021 Annual Conference presentation by STFM Faculty Development Collaborative)

Oral presentations (more prep/organization)

Quantitative (ability to translate)

Study completed at time of presentation (better feedback)

Rigor in abstract (design/methods)

Multiple institution collaborations (variety of viewpoints, similar data sets)

PhD as last author (guide)

Acting quickly– relevant/important topic (3 years max)

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General Advice for Publishing

- QI projects (making change in program) do not need IRB unless you plan to publish → need IRB approval or IRB exempt letter
- Do a **Resident / Student Work in Progress** presentation → before collecting data/results
- Put thought/effort into **Limitations** section (as well as strengths)
- Some journals will ask single institution studies to be research briefs (1000 words) instead of full manuscript (3000 words)
- Use Reference Manager (Endnote, Zotero) – saves you time
- Make everything count TWICE

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Take home messages

Medical students and residents can be effectively leveraged to build capacity for scholarship in clinical practice.

Scholarship is a team sport with diverse forms

Publishing is formulaic but requires time + mentoring + accountability

Writing skills can be learned and, with practice, most faculty and residents can become excellent scholars

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Evaluation


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Thank You

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