Developing a Research Project: Selecting an idea and choosing a research mentor

Anuradha Paranjape, MD MPH, FACP
Professor
Section of General Internal Medicine
September 11, 2014
Outline

- Generating a research idea
- Finding a mentor
- Mentor-mentee expectations
Natural history of early research careers

1. Find a mentor
2. Find a research focus
3. Develop and carry out research project
Generating a research idea

- Picking a field (Locus)
  - Easier if you have a field or subspecialty

- Picking a question (Focus)
  - Is the question important?
    - The difference, to be a difference, must make a difference (Gertrude Stein)

- Assess feasibility
- Will this work in our healthcare system?
  - What others resources can I leverage?

1Kroenke, JGIM 1996
More on feasibility

Things to consider:

- How much time do I have?
  - Primary data collection projects are harder, take more time, but more valued
- Is there an existing database I can tap into?
- Is there an existing research team in need of a volunteer?
- Can you get funding?
  - More germane to sr fellow or faculty projects
What if you have a locus but no focus…

- Potential sources of research questions:
  - Mentors
  - Colleagues
  - Discussion sections of papers in an area of interest
  - Clinical work-patients!
Ideas suggested by others

- Mentors are a very good source of ideas, however..
  - Be sure to assess how you feel about their idea

  - Curious
  - Skeptical
    - Passionate
    - Open
    - Averse
My own trajectory

- Post-residency-early fellowship
  - “Women’s Health”
- Fellowship
  - Intimate partner violence-screening
    - One project, mentored, primary data collection
- First 10 years of my academic career
  - Violence in older women—identification, then health effects
And I am still evolving

- Cross campus collaborative efforts
- Serve as a content expert on jr faculty and post-doc projects
- Took big left turn and now involved with a big data project
Not all ideas work

- Sometimes they do not work.
- A good mentor will guide you away from an idea that does not work out (and should do so early).
On mentoring
What is a mentor?

- **noun**
  - a wise and trusted counselor or teacher.
  - an influential senior sponsor or supporter.

- Odysseus's trusted counselor, in whose guise the Goddess Athena became the guardian and teacher of his son, Telemachus.
Forms of mentoring

- Classic model:
  - One on one
  - Work under supervision
  - Common in labs

- ‘Newer’ models
  - Multiple mentors
    - Often serve different, complementary needs
  - Peer mentoring
Choosing a mentor

- Need to have a high degree of self-awareness
- Clarify what energizes you
- Interpersonal preferences
  - Do you need a lot of praise and feedback?
  - OR
  - Do you prefer to try things first, for yourself?
Choosing a mentor

Be clear on what you need

- Methodological guidance
  - Specific guidance with a procedure, lab technique, analytical skill
- Help with writing skills
  - Grantsmanship, paper edits
- Navigating a new faculty position or academic center
- All of the above or more!
Ideal mentor qualities

- Senior enough to guide
  - Degree of seniority driven more by experience, less by amount of grey hair
  - Sometimes someone a few years ahead can provide specific task related guidance that more senior folks cannot
    - I had an advisor for one of my grants who served in this role, now I do the same
Mentor qualities II

- Has published in the area you are interested in
- Is networked and can open professional doors for you
- Has time and interest
Is secure enough to allow you to develop your own ideas

And is not looking to create ‘Mini Mes’

- Chat with former trainees/mentees
- Were there any authorship issues?
- Who made decisions on trainee projects?
Where to look for mentors?

- **Section**
  - The first place to start
  - Common subject area

- **Department or School**
  - Overlap areas—best methods expertise may lie outside your immediate work unit (or even department)

- **Outside School**
  - Fellows often carry their mentoring relationships into faculty career
  - Has proved rewarding for many
Reasonable expectations of mentors

- Available and accessible
- Coaches and gives credit
- Pays attention to both details and big picture
- Role model for work-life
- Provides opportunities
- Recognizes potential
- Inspires to take risks
- Improves sense of identity, competence, self-awareness
Common obstacles

- Perceived unavailability
- Fear of rejection
- Career indecision
- Trying to find an all in one mentor
- Paucity of senior mentors in your field
Overcoming roadblocks

- Persistence pays off
- Find more than one
  - Junior + senior
- Network in your professional organization
  Often mentors may be found outside your institution
Mentoring is a two way street
Mentee expectations\textsuperscript{1}

- Well organized
- Takes initiative
- Motivated
- Open to new ideas
- Seeks and incorporates feedback
- Respectful and considerate
- Follows up and stays engaged

\textsuperscript{1}Zerzan et al, Academic Medicine, 2009
Cultivating- managing up

- Articulate your needs
- Set your personal goals and stick to it
- Be responsive and available
- If there are issues.. bring them up
  - E.g. Trouble meeting goals, have mentor help reassess feasibility
- Ask for feedback on progress
- Understand yourself and your mentor
Communication

- Ask mentor about preferred style
  - Recognize that some issues need face to face meetings regardless of style
- Meet frequently but effectively
  - Come with an agenda, materials to review
- Avoid defensiveness
- Disagree when you need to—but with thoughtful, clarifying questions
Dissatisfaction happens

- Mismatch of goals, expectations
  - On both sides
- Change in interest
  - Moving away from research, or from field
- Open communication is key
Termination of relationship

- Part of natural history
  - Career change
  - Change in location
  - Mismatch

- Part of pathway to independence
  - Once mentor, now colleague and friend
In summary

- Passion for research and a good mentor are critical ingredients for early research successes.
- Clinicians interested in research often have and need more than one mentor.
- Knowing one’s expectations (mentee, mentor) goes a long way towards building a good mentoring relationship.