Work Smarter Not Harder: Tips For Junior Academic Epidemiologists And Other Junior Faculty Researchers

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Abstract

Launching an academic faculty career can be daunting, even for those who have completed doctoral level status. Career advice on how to be a successful academic epidemiologist is generally limited to interpersonal communications, as there are scarce written materials on this topic. This is true in many disciplines, and not just Epidemiology. For individuals with or without an active discipline-specific mentor, this article provides six tips for increased productivity, increased efficiency, and overall career success that can benefit aspiring academic researchers. The target audience includes junior faculty and post-doctoral fellows who are pursuing or considering a research career in academia, with special attention to epidemiologists and other public health faculty.

Key Words: Career advice; epidemiology; job skills; junior faculty; postdoctoral trainees; career counseling; career choice; research activities; research support; collaboration

Introduction

After 13 years as an academic researcher, I have some day-to-day practical career advice that I'd like to share with junior faculty, post-doctoral fellows, and graduate students intending to enter academia. With an additional 10+ years in business working my way up the corporate ladder to corporate officer, I bring a unique perspective and some insights that may not be readily apparent to others. Working hard is not enough. Working smart provides a big advantage. Combine that with some political savvy and strong interpersonal skills and you can get to where you want to go. You can improve your productivity, have more leisure time, and be more successful by working smart. I'm not talking about scientific content knowledge. I'm talking about work habits and skills.

Brownson et al published a study in 2002 of senior epidemiologists from public health departments, the CDC, NIH, and schools of public health (Brownson et al., 2002). Those n=248 senior faculty participants reported that the top 2 facilitators of career success in Epidemiology were a dedication to hard work, and having an intrinsic curiosity and a sense of discovery. In 1995, Harlow suggested that Epidemiology career success could be aided through interdisciplinary collaboration, analyzing existing data sets, and having an Epidemiology mentor (Harlow, 1995).

These attributes and recommendations are all great, but let's get grounded and practical. How can you help yourself as a junior faculty to meet and exceed the job expectations? Here is my short list of the key skills and traits to being a successful academic researcher, and hopefully these are beneficial whether or not you are an Epidemiologist. (I acknowledge that my career trajectory and success might have been totally different had I joined an existing team of researchers with ample funding and an attitude of collaboration

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and mentorship. Though I suspect these skills would be equally relevant in that scenario because these skills are still of value to me now as an Associate Professor.)

Tip 1. Double Bounty.

Your time efficiency and productivity go way up if you can get "two for one", so to speak. This can be accomplished in several arenas, both with research and in the classroom.

Double bounty for your research presents itself through opportunities to publish what you will be doing anyways. You will have to search the literature in order to stay current and to plan your next analysis or grant submission, so aim to take that effort and those findings and craft it into a literature review paper. Turn everything you can into a publishable manuscript. When your research is accepted as a poster or a presentation at a conference, write the article concurrently with the presentation. The paper is already half done through the creation of the presentation. For instance, the Methods section in the presentation is the outline and some content for the Methods in your article. Conversely, developing the presentation will help you focus on the most salient points for the article, and the tables and/or graphics you create for the presentation can be used for the article. A recent publication even documents the benefit of blog posting your research findings (Hoang et al., 2015)!

Analogously, use what you know already in the classroom. No need to spend the time creating a brand new teaching module if you have the opportunity to relay what you already know into education-worthy content. Your area of expertise may seem old hat to you, but will likely be new and engaging to others. The course will likely have some content that overlaps with your research area and other areas that don't. Even on the latter new topics, you still may be able to use examples from your work to enrich the course and

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it will save you time to fill in the content with your existing knowledge. And certainly for guest lectures, you can use the preparation of the lecture's presentation to help you with your next article, or conversely, you can use your latest article to design the presentation.

Tip 2. Be a Role Model.

Be the type of colleague and mentor that you want others to be. I've experienced an attitude from some more-experienced faculty of "this is the tough/disrespectful/heavy-handed way I was treated, so this is how I'll treat you". When I was a graduate student, a faculty member put down my ideas, and tried to block my independent initiative on what was to be a joint series of analyses and papers. Clearly the idea that a graduate student could lead an analysis and be first author was not something this individual had witnessed or for some unknown reason they were unwilling to accept it. Respect is a very valuable commodity in this time-crunched, productivity-oriented world of ours. Respect begets respect. So show that to the people you work with, whether they are above or below you on the career ladder. This mutual respect for others will reward you when you are seeking collaborators and asking for recommendation letters for yourself. Your reputation matters when you are evaluated by promotion and tenure committees in the future!

An area where "double bounty" and "be a role model" intersect is mentoring trainees. I was quite fortunate to have had the opportunity to have a graduate student assistantship under a faculty member who was willing to actively work with me as I wrote my first scientific journal article. In hindsight that must have taken a lot of time, but the payback to her came in the form of 5 joint articles we published. When you work with a mentee/trainee, they will gain much from helping you to write and complete a paper. And you will accomplish your mentoring duties and get a publication at the same time. It is a win-win situation for all. Research

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supports the observation that those who include trainees as co-authors have greater overall scholarly productivity than those who publish only with physician and PhD scientists (Svider et al., 2014).

Tip 3. Take it on.

I remember the panic I felt once the thrill of getting my first NIH grant had subsided. "What – you mean I have to do this study now? But I've never conducted a randomized clinical trial before! I never even worked on one as a graduate student!" As one of the early readers of this article told me, it is good to be "a little over your head and then swim like crazy". Learning on the job is what you are supposed to be doing.

Unrelated to that grant, a new opportunity presented itself from a single meeting where an expert in genetic testing said to a department colleague, "might your department be interested in researching this new specialized lab test?" The colleague approached me, as the clinical department's Epidemiologist, and subsequently came many years of successful studies and articles in a content area new to me. That success occurred because I was willing to listen and to "take it on". There was a learning curve where I had to spend time to learn the content, and then I ran with it.

When you smack up against circumstances that challenge you and make you slightly uncomfortable, take heart that everyone who accomplishes anything has begun similarly. Use the resources available to assist you and always be willing to ask for help when needed. While it may initially take some bluffing of confidence, prop yourself up and go for it. This may be especially true for females, due to the phenomenon of lower confidence in highly successful women compared to men as reported in "The Confidence Gap" (Kay and Shipman, 2014). This skill will help you to be professionally successful, because some fearlessness is needed for that first

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grant submission, that first role as a funded Principal Investigator, etc.

Tip 4. Make that cold call.

If you have mentor(s) or colleague(s) who are successfully getting grants and include you in their publications, then you are probably all set. (Lucky you!) But for the rest of us, more initiative is needed. A skill I have learned over time is making that "cold call", which is a sales term for calling someone with whom you have neither prior relationship nor a referral. Without any introduction from a third person, I have emailed and telephoned people I've never met to see if they will share their unpublished questionnaire, will serve as a consultant on a grant, are interested in collaborating on a paper, and will partner with me on a grant. These are individuals who have published in an area where they have expertise that I don't have, and where, as a team, we can produce a far improved product than I could without their input, perspective, and/or active involvement. The credentials of these professionals will help your grant or article to pass "the eye test" when reviewed by experts.

As one example of a beneficial, productive cold call, I identified a potential colleague from the literature who was outside of my institution and training, and then emailed her to see if she might be open to a collaboration. She was open to discussion, and ultimately we co-mentored a student publication and submitted multiple grants together. Years later, she helped me secure a better faculty position. As a second example, more recently I cold called potential collaborators with specialized expertise whom I identified from the literature in hopes that they would participate on a grant proposal. Some agreed, and with their valuable involvement, I was able to elevate the design and content of an NIH grant application well beyond what I could have accomplished alone.

This skill is not taught in public health masters' or doctoral programs.

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Although it is a marketing tool, scientists do use a variation we simply call networking. Technically, networking is defined as "the cultivation of productive relationships for employment or business" according to the Merriam-Webster dictionary, and "social networking" is even a MeSH term. It is widely accepted that networking can increase job opportunities, collaboration opportunities, and can enhance job satisfaction among scientists. But networking generally occurs through conferences and other organized activities that bring together people who don't typically work together on a daily basis. The skill of networking differs from the skill I'm referring to here, because "cold calling" does not start with face-to-face interaction at a meeting. (As defined by the Merriam-Webster dictionary, a cold call is "a telephone call soliciting business made directly to a potential customer without prior contact or without a lead.")

Tip 5. Be able to walk away.

Most likely you have many more ideas (for a paper, project, study, grant, etc.) than you will actually pursue. You will dismiss many early on for a variety of reasons. Some ideas you will take on and will continue to expand, adapt, develop, and bring to fruition. But others will stall or be something less than four-star endeavors. It is important to know when to walk away. I recall spending 3 years on a study. I received department funding, but was turned down for institutional funding. I was able to build the prototype computer database with undergraduate student engineers, and subsequently was turned down for NIH funding. Then I saw a publication with a 5-times larger sample size than I could obtain. That was a clear sign to end my time on that study, despite what I had invested into it.

It is not always clear when to walk away. Think of your time as money that you've invested; sometimes you have to sell that losing stock and cut

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your losses. The flip side is that perseverance can pay off. I know someone who re-packaged an NIH grant multiple times and was finally funded on the fifth submission. Personally, if, after a year or so of effort, I don't see forward progress or can't visualize a way to invigorate the concept, then I move on. But I never give up on a manuscript; I believe there is a home for every article, though you may have to literally pay for the publication through a new open access journal! Getting that article published is societal payback to the study participants, funders, etc. so turning that analysis and text into a citation is important to me. And every citation helps bolster your productivity and confidence.

Tip 6. Be willing to take a new look.

We are all invested in our ideas. As researchers, it takes great patience, fortitude and perseverance to see a study through from concept to final publication(s). So when reviewers of our grant proposals and manuscripts provide their feedback, our natural instincts may include some defensive and/or dismissive thoughts. I have found it beneficial to read the feedback, put it aside, and re-read it a week or two later. Gaining perspective on your ideas isn't easy, but most of the time that feedback truly is beneficial.

I'm embarrassed to admit that I waited about 2 years after my post-doctoral fellowship before I was able to honestly read and respond to the feedback on a paper from my fellowship mentor. I was so upset by the extent of ink on those pages, that I put it aside. And when I read it after that long gap, I was able to follow her logic. I made the revisions, got it published, and it is now my second highest cited article of everything that I've published!

Being able to "look new with fresh eyes" at what you've written is a valuable skill to develop and hone. It will improve your success rate with publications and grants, and that will

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help you to become a successful academician.

Conclusion

I hope these "top six" tips are as helpful for you as they have been for me. Being employed in the "publish or perish" world has its inherent stresses, so you might as well work smart and efficiently. The difficulty of balancing work and life has been cited by many as a key barrier to career success, including the senior epidemiologists studied by Brownson et al (Brownson et al., 2002). So try out these skills to see if they increase your productivity, improve your time management, and increase the reward for your efforts.

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References

Brownson, R. C., Samet, J. M., Thacker, S. B. Commentary: What Contributes to a Successful Career in Epidemiology in the United States? *American Journal of Epidemiology*. 2002;***156***:60-67. http://aje.oxfordjournals.org/content/156/1/60.abstract

Harlow, B. L. Coping with the personal and professional frustrations of epidemiologic research. *Am J Epidemiol*. 1995;***142***:785-787. [PMID: 7572953]

Hoang, J. K., McCall, J., Dixon, A. F., Fitzgerald, R. T., Gaillard, F. Using Social Media to Share Your Radiology Research: How Effective Is a Blog Post? J Am Coll Radiol. 2015;12:760-765.

Kay, K., Shipman, C. (2014). The Confidence Gap. *The Atlantic, 5*. http://www.theatlantic.com/magazine/archive/2014/05/the-confidence-gap/359815/

Svider, P. F., Husain, Q., Mauro, K. M., Folbe, A. J., Baredes, S., Eloy, J. A. Impact of mentoring medical students on scholarly productivity. *Int Forum Allergy Rhinol*. 2014;***4***:138-142. [PMID: 24243770]

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