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Grant Writing in Higher Education

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Capstone Results: Grant Writing in Higher Education

University of Southern Maine

Muskie School of Public Service

4/28/2016

Summary

The primary aim of this capstone was to elicit feedback from public health and grant writing practitioners and funders in order to gather data that can be used to supplement teachings and readings for a course in the Muskie School of Public Service Masters in Public Health (MPH) graduate program. Two overarching questions served as the basis for this endeavor. The primary question for public health and grant writing practitioners was, “What are the most important lessons you have learned that you think graduate students who are writing their first proposals should know?” The primary question for funders was, “What are the aspects of an application you look for so that you can decide that the proposal is well planned, well researched, and is generally the type of proposal to receive funding?” The collective responses from these interviews provide a solid foundation for augmenting one or more courses in the MPH program, thereby providing students experience with important facets of the grant writing process and increasing their competitiveness in the job market.

Background

In the field of public health funding, a significant portion of funds are acquired through a competitive grant application process. Recent statistics indicate fewer projects are being funded and, more often than not, more experienced researchers win the grants. According to the Robert Wood Johnson Foundation, “The budget for Center for Disease Control (CDC) has decreased from a high of \$7.07 billion in fiscal year (FY) 2005 to \$6.93 billion in FY 2015” (Robert Wood Johnson Foundation, 2015, p.4). Unfortunately, “In 2009, only 21% of reviewed grant applications to the National Institutes of Health (NIH) were funded, compared with 32% 10 years earlier. Of those funded, few are early-career researchers (under the age of 35); in 2001, early-career researchers represented just 4% of NIH grant awardees” (Dumanis et al., 2012,

p.419). These findings hint that, not only is there an increase in the level of competition for resources in funding, but that these resources are generally awarded to those with more experience in grant writing.

Once public health practitioners are in the workforce they often realize the importance of grant writing skills. “Grant-writing skills have traditionally been acquired informally as needed. A majority of faculty members in academic medicine report that they have not received instruction in scientific writing, despite reporting that ‘effective writing of grants and publications’ is their highest career development need” (Dumanis et al., 2012, p. 419). Including experience with the grant writing process in the coursework for the Master’s Degree in Public Health could help ensure that Muskie students have more positive results with the competitive grant writing process as well as address one of the most oft-cited public health career development needs.

Grant Writing in Public Health

Grant writing has many facets that directly pertain to The Council on Linkages Between Academia and Public Health Practice’s core competencies. The analytic/assessment, policy development/program planning, communication, cultural competency, community dimensions, public health sciences, financial planning, and leadership/systems thinking skill areas are all needed to successfully complete the grant writing process. A search of three popular databases, Pubmed, Medline, and Google Scholar, returned very few articles written during the previous decade that pertain specifically to writing public health grant applications. There are, however, a number of recent articles that highlight the importance of grant writing in public health, or point out the need for understanding the grant writing process to attain local, state, or federal funding (Crawford, Vilvens, & Pearsol, 2008; and Lindley, Wilson, & Dunn).

There are several studies that have been conducted that attempt to understand grant writing from the funder's perspective, both psychologically and financially. Understanding the psychology of the peer review process is addressed in several articles (Arensburge, & Besselaar, 2012; Arensburgen, & Besselaar, 2014; Bornmann, 2008; and Bernet, 2012). Some literature highlights the importance of understanding how funding is allocated, note the increased competition among applicants, and identify the need for better understanding funding formulas at the local, state, and federal levels (Freedman, Kuester, & Jernigin (2013); Ogden et al, 2012; and Joseph, Rice, & Li, 2016).

Graduate Education and Grant Writing

The literature pertaining to grant writing and public health overwhelmingly describes the importance of providing graduate students with grant writing experience before they become part of the professional workforce. Detailed strategies that guide the reader through the grant process can be helpful to graduate students and are used in other public health courses in the United States (Gholipour, Lee, & Warfield, 2014; Licklider, 2012; and Gatlin, & Lyons, 2014). The importance of grant writing skills and courses designed to provide experience in this area are outlined in several articles (Dumanis et al., 2013; Keis & Loos, 2013; Stein et al, 2012; and Kent, & Liller, 2009). Additional studies point out the importance of including grant writing as part of a public health education and the difficulties in acquiring grant writing tools on the job (Crawford, Vilvens, & Pearsol, 2008; and Lindley, Wilson, & Dunn, 2005). Collectively, these studies provide details of the benefits of providing public health students with grant writing experience.

While the literature provides a template for universal grant applications, there is a lack of instruction specifically for public health students. Utilizing first hand experiences from both

grant writers and funders in the realm of public health as a supplement to any course dealing with grant writing will help provide this instruction in a manner that is more compelling and persuasive to Muskie students.

Implementation

Stage 1: Recruitment

A pool of experienced grant writers and funders was assembled by the MPH Faculty at the Muskie Institute. The subjects were then contacted by MPH faculty and participation in the interview process was confirmed. Seven subjects were recruited and introduced to the capstone student who then scheduled interviews with the subjects during the month of March.

Stage 2: Data Collection

A key informant interview protocol was developed. A short interview consisting of 5 questions, not including prompts, was conducted taking no longer than 30 minutes to complete. The interviews were recorded with a video camera. The interviews with the applicants had a focus on key strategies and lessons learned from their grant writing experiences. The interviews with funders had a focus on highlighting the most important aspects of applications that influence their decision to award funding.

Stage 3: Data Analysis

A thematic analysis was conducted utilizing a matrix approach in order to identify important themes in the data collected. These themes were then tabulated based on frequency mentioned and ranked. The focus was on the three most oft-mentioned topics for the funders and writers individually as well as both subject groups combined. These themes were then disseminated in a practice brief and a short video of compiled highlights was created.

Deliverables

A practice brief highlighting the common themes of the data analysis, as well as a short video providing insight into the most important aspects of acquiring funding through the grant writing process, was created to supplement the grant writing capsule in the MPH course.

Timeline

Capstone Timeline					
February	March			April	
22	3	4	25	11	28
Capstone proposal due to Brenda, Terry	Present Proposals to Muskie Staff	Complete IRB review	Complete Interviews	Draft Practice Brief	Capstone Presentation
		Begin Recruitment of Interviewees	Begin Data Analysis	Compile Recordings	

Results

The data was categorized by topic and number of times mentioned by writers and funders individually, and both funders and writers combined. If a topic was mentioned more than once by a subject, then the number of times it was mentioned was counted. The common themes were then disseminated and grouped accordingly.

Topic	Funders	Writers	Total
Follow Directions, Match Proposal to RFP	12	4	16
Write so Reviewers Can Understand, Clear Language, No Errors	8	3	11
Demonstrate Past Work, Successes, Expand Upon in Future Work	3	3	6
Call, Ask Questions	5	1	6
Spend the Most Space on Sections Worth the Most Points	5	0	5
Importance of Budget and Budget Narrative	4	1	5
Don't Use Professional Grant Writers	3	0	3
Use Clear Goals, Objectives, and Evaluation Plan	3	0	3
Importance of Site Visits	3	0	3
Scheduling, Time Management	1	2	3
Work with a Team	1	2	3
Scope Project to Funds	1	1	2
Don't Get Discouraged	0	2	2

Table 1. Overarching Themes in both funder and writer subjects.

As a group, the most prominent topic touched upon was to follow directions and match the proposal to the request for proposal (RFP). During interviews with 7 subjects, it was mentioned a total of 16 times. The second most mentioned topic was to write clearly, and make sure the proposal is error free so reviewers can understand the proposal. This was mentioned 11 times by the 7 subjects. The next most prominent points mentioned, both 6 times by the 7 subjects, were to call, or ask questions and to demonstrate past successes and propose to expand upon that work.

Topic	Funders
Follow Directions, Match Proposal to RFP	12
Write so Reviewers Can Understand, Clear Language, No Errors	8
Call, Ask Questions	5
Spend the Most Space on Sections Worth the Most Points	5

Table 2. Most mentioned topics by grant funders.

The grant funders that were interviewed advised to follow directions, and to match the proposal to the RFP the greatest number of times. The four subjects made a point to mention this topic 12 different times. Secondly, they recommended writing clearly and making sure the proposal is error free 8 times in 4 interviews. The third oft-mentioned piece of advice is to spend the most time on the sections worth the most points, which was mentioned 5 times in the 4 interviews. The grant writers agreed with the funders as to the two most important points.

Topic	Writers
Follow Directions, Match Proposal to RFP	4
Write so Reviewers Can Understand, Clear Language, No Errors	3
Demonstrate Past Work, Successes, Expand Upon in Future Work	3

Table 3. Most mentioned topics by grant writers.

Follow directions, and match the proposal to the RFP were mentioned 4 times by the 3 subjects. Writing clearly and making sure the proposal is error free was mentioned 3 times during the

three interviews. The writers recommended that one demonstrate past work, successes, and expand upon that in future work 3 times in the 3 interviews.

Discussion

The most cited piece of advice as an overarching topic and for each subject group individually, was to follow directions and to match the RFP to the proposal. This is the answer to both the primary question posed to writers (what are the most important lessons you have learned that you think graduate students who are writing their first proposals should know?) and to funders (what are the aspects of an application you look for so that you can decide that the proposal is well planned, well researched, and is generally the type of proposal to receive funding?) The second most corroborated topic was to write clearly and make sure the proposal is error free by all of the subjects, and by writers and funders individually. The next most mentioned topic by both groups combined was that it was important to demonstrate past successes and build upon that in the proposal as well as an equal number of mentions that it is important to call and ask questions of the funders. The writers' third most often recommended topic was to demonstrate past success and build upon that in the proposal. This differed from the funders' third most popular recommendation: to spend the most space on the sections worth the most points.

The recommendations gathered in these key informant interviews are a solid foundation provided by leaders in the grant writing/funding community. The topics mentioned can be very helpful to any graduate or undergraduate student looking to develop skills in grant writing. It should be noted that these interviews serve as a first step in gathering advice pertaining to grant writing that is beneficial to graduate students. Future work should include more test subjects and include alterations to the questions based on student feedback. In addition, it should address data

categorization to ensure topics are grouped and ranked properly. This work represents an important first step in providing Muskie students with information that is paramount in the field of public health. As one interviewee said, “A lot of public health careers are really funded on grant writing; I can’t think of a time I’ve worked in public health where my position has not been grant funded. It’s critical...seek out opportunities to learn about the grant process, and to work on grant writing prior to entering the field” (Key Informant, Personal Communication, March 15, 2016).

Related Competencies and Courses

The graduate program in public health competencies that apply to grant writing are:

I. Communication

1. Demonstrate effective written and oral skills with different audiences
2. Apply theory and strategy-based communication principles
3. Apply skills in culturally appropriate community engagement
4. Demonstrate interpersonal communication skills

II. Leadership

1. Demonstrate team building, negotiation, and conflict management skills
3. Use collaborative methods for achieving community health goals

III. Health Policy and Management

2. Identify key components and demonstrate an understanding of the organization, financing and delivery of health care and public health services
4. Apply the principles of strategic planning and marketing
5. Demonstrate the principles of budget development
6. Apply the principles of financial planning and management

IV. Public Health Science, Research and Theory

1. Apply theories, concepts, and models used in public health.
3. Identify individual, organizational, and community concerns, assets resources and deficits
6. Provide certification of understanding regarding the use of protected health information and the role of internal review boards

V. Informed Decision Making

2. Apply evidence-based principles and knowledge to decision-making in public health
3. Interpret results of statistical analysis
4. Identify sources of health information
5. Articulate the strengths and weaknesses of qualitative and quantitative methods of inquiry
7. Apply legal and ethical principles to decision making in public health

The projected coursework that would be involved with a grant writing based class would work in concert with or supplementary to many of the already offered coursework. Classes such as Health Systems Organization and Management, Health Planning and Marketing, Finance I and II, Public Health Practice, Health Information Management, and Professional Opportunities and Development can all benefit students required to take a grant writing class.

Conclusion

The competition for limited health related funding in the United States is increasing. Funding for public health related endeavors is generally acquired through a competitive grant writing process. Supplementing what is already known about attaining funding with key

informant qualitative data and providing this information to Muskie students will help to ensure the MPH students at the University of Southern Maine enter the workforce with a better understanding of the grant writing process and have tools for success in acquiring funding.

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Perspectives from the Field

Public Health Practice Brief
Spring, 2016

Grant Writing and Funding

Background

Public health relies heavily on grant writing to acquire funding. Traditionally, grant writing skills are acquired informally by practitioners already in the workforce, however, health professionals often list effective writing of grants as their highest career development need (Dumanis et al., 2012). The primary goal of this capstone was to document first hand experiences of public health funders and grant writers with the intent of capturing their personal reflections and advice for graduate students. Two overarching questions were addressed:

- 1) *Grant Writers*- "What are the most important lessons you have learned about writing a proposal?"
- 2) *Grant Funders*- "What are typical features of a grant proposal that make it successful?"

"I can't think of a time I've worked in public health where my position has not been grant funded. It's really critical...seek out opportunities to learn about the grant process, and to work on grant writing prior to entering the field." -Key Informant

Methods

A pool of experienced grant writers and funders was identified by the faculty in the Graduate Program of Public Health. A total of seven semi-interviews were then conducted and analyzed by identifying key themes.

Lessons Learned

It is important for the organization applying for the grant to show a commitment to the proposed work. Sharing past experiences and successes can be a helpful approach.

The budget and the budget narrative are far more important than people think. Aligning your proposed idea with the budget is critical.

Most RFPs and FOAs have an e-mail or phone number to contact with questions that may arise. It is highly recommended that grant writers utilize this resource in order to eliminate any uncertainties and to ensure that the application matches what the grant funders are looking for.

Key Findings

Understand What the Request for Proposal is Asking For and Follow Directions.

- Funding Opportunity Announcements (FOAs) often contain directions and it is imperative that, at the very least, the grant writer follow instructions.
- It is important to understand what the funder is asking for, and whether or not it is something the applicant wants to pursue.
- Each element of the Request for Proposal (RFP) needs to be included and addressed.

A Good Proposal is Written Clearly and is Error Free

- Proofreading is very important, it can be very helpful to have several people read through the proposal and look for errors.
- A good proposal is written clearly and is understandable to all readers, both those familiar and unfamiliar with the topic.
- Writing, reading and comprehension skills are integral to grant writing success.

Spend the Most Space Writing About Things That Will Get You the Most Points

- It is important to align the application with the scoring criteria. For example, make sure a section that is worth 30 points receives more space and attention in the application than a section that is worth five points.

References

Dumanis, S., Ullrich, L., Washington, P.M., & Forcelli, P.A. (2013). Its Money! Real-World Grant Experience Through a Student-Run, Peer Reviewed Program. CBE-Life Sciences Education. 12:1. p.419-428.



*This Practice Brief was Prepared as Part of a Group Capstone Project for
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Capstone Video Link
4/28/2016

Link to YouTube video:

<https://www.youtube.com/watch?v=UvYYEIImq0A>

Grant Writing Professionals: Tips and Strategies

Tips and strategies for grant writing from leaders in the field of public health compiled for the Muskie School of Public Health graduate students.