Externally Funded Research in Counselor Education: An Overview of the Process

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Abstract:

"Publish or perish" is a phrase familiar to untenured and tenured faculty alike. In recent years, prominence has been placed on academicians to secure external funding for their research and training projects. The counselor education field has not been immune to this call for externally funded projects. This article includes strategies for seeking and receiving external funding for counseling-related research in an effort to help counselor educators flourish in a paradigm that increasingly calls for greater external funding. Emphasis is placed on gaining knowledge and experience with federal funding agencies.

Article:

"Publish or perish" are the words that have been spoken and heard by counselor educators for years. In the past, untenured faculty needed merely to publish at a regular pace and present at national conferences to attain tenure and promotion. Unfortunately, current economic trends within universities and the continued push for evidence-based practices have increased the emphasis on applying for and receiving external funding, thereby increasing the expectations for success among untenured counselor educators, their tenured colleagues, and department chairs. In this article, we explore reasons for the current focus on applying for and obtaining external funding and the challenges faced by counselor educators who wish to obtain external funding. We also describe a series of steps to assist researchers in their pursuit of external dollars.

The Importance of External Funding to Counselor Education

The pressure on counselor educators to pursue and secure funding for their research is not new. Robinson (1994) stressed the need for counselor educators to seek out financial assistance

for their research efforts, as well as the need for mentors to provide guidance to junior faculty in these endeavors. However, the recent economic realities have markedly increased the demands on university administrators to secure budget funds other than public funding, tuition revenue, and donor contributions to support academic departments (Hebel, 2010; Wampler, 2010). Furthermore, many college administrators and statewide leaders of public education believe that with the long-term effects of the current economic crisis, budget cuts to education, and increased demands from taxpayers to acknowledge the benefits of spending tax dollars on higher education, there will be no return to previous budgeting norms once state tax revenues rise to prerecession totals (Hebel, 2010). In essence, the current push for departments and faculty members to find external funding is unlikely to diminish in the foreseeable future.

The direct benefits to a university for receiving external funding, other than increased revenue, may include more recognition for the institution, as well as an increased research profile. In addition, there are several direct benefits to faculty members who are successful in obtaining external funding. External funding provides an opportunity for the recipient to pursue a research agenda in a more focused manner and to produce higher quality research (Shaw, 2002; Wampler, 2010). In addition, external funding enables the recipient to have more time to work on research by supporting graduate assistants, allowing for course buyouts, and paying for time-consuming practices such as interview transcription or quantitative data collection and entry. (In a course buyout, a faculty member reduces his or her teaching load in return for providing funds to the college.) Finally, external funding is a method to receive summer pay, which is important, because some universities have reduced summer course offerings as a way to address statewide budget cuts (Hebel, 2010). Receiving external funding for research projects also benefits an individual faculty member's department, because external funding can often be used to pay for additional graduate assistantships, technology, tuition reimbursements for graduate students, and travel funds for attending professional conferences (Wampler, 2010). These benefits are substantial and should provide counselor educators with both extrinsic and intrinsic motivation for seeking external funding for their research projects.

Changes in federal funding, which is one of the largest purveyors of external funding in the United States, affects counselor educators' access to these funds. The 2010 fiscal year budget put forth by President Obama increased funding for health research and education research (Nelson, 2010a). Specifically, the majority of the funding increase was given to the National Institutes of Health (NIH), by an increase of 3.2% between the 2010 and 2011 budgets, and the National Science Foundation (NSF), by an increase of 8% between the 2010 and 2011 budgets. These two government agencies fund the types of research likely to be conducted by counselor educators. The U.S. Department of Education (DOE), another potential funding agency for counselor educators, also received a 7.6% increase in dollars earmarked for research between the 2010 and 2011 budgets (Nelson, 2010b). The increase in federal funding to the DOE, however, points to the possibility of increased expectations that will come to faculty members for securing external funding for research. Additionally, DOE grants will now be accessible to alternative-

licensure/certification programs and school districts, highlighting increased competition for grant applications. However, recent economic hardships, political debates, and the 2011 national debt crisis have all contributed to uncertainty whether nonmilitary research funding will continue to grow as it did in fiscal year 2010 (Vergano, 2011). Nevertheless, the economic constraints, university funding cuts, and increased expectations for departments to become economically self-sufficient all increase the pressure to obtain external funding.

Challenges in Obtaining External Funding for Counselor Educators

Elliott and Shewchuk (1999) noted that applied-psychology-related fields (e.g., counseling psychology, clinical psychology, counseling, school psychology, school counseling, rehabilitation counseling) have experienced difficulty in securing external funds, whereas researchers in the general field of psychology (e.g., developmental, cognitive, neurobiological, or abnormal psychology) have had greater success obtaining external funding. This discrepancy is partly due to a history of funding for the study of basic human behavior, development, cognition, and the biological contexts of human behaviors compared with applied methods for addressing mental health. To illustrate this point, Elliott and Shewchuk reviewed the counseling psychology literature to explore the percentages of counseling and applied psychology studies supported by external funds between 1994 and 1996. Elliott and Shewchuk focused on rates of internal/university funding, private funding, state/provincial funding, and federal/national funding within seven publications. When they focused solely on federal/national funding, because this is the largest source of research funding, the percentage of articles reporting funding ranged from 1.3% to 69.7%. The authors noted that because researchers have a choice as to where they choose to publish their work, it is likely that funded applied-psychology-related studies appear in health and health-related journals, partially due to the perception that policy makers (and, subsequently, grant reviewers) are more likely to read these types of journals. However, what stands out most from Elliott and Shewchuk's study is that, in a 3-year span, only 1.3% of studies published in the *Journal of Counseling & Development*, arguably the flagship journal for the counseling profession, received federal funding. Finally, considering that researchers receiving federal funds are required to indicate that their research was funded by a federal grant upon publication of the findings, it stands to reason that the lack of reporting of federal funding in these journals is not due to oversight by the authors.

The reason that counseling research is seldom supported by external funding is mainly because of more focus on "outcomes associated with the lowest level of therapeutic activity [rather than] higher levels [such as those] concerning public policy, resource allocation, and management of health care professions" (Elliott & Shewchuk, 1999, pp. 432–433). Another contributor to low percentages of counselor-educator-sponsored research may be related to a general attitude toward external funding, particularly from the federal government. For example, Garic (1996) equated the concept of "behavioral health" as a "government pawn" used by the NIH to not fund mental health research, but rather to further infuse the medical model into basic science psychology, to study brain mapping or neuropsychology, and essentially to eliminate the ability

of counselor educators to receive funding for applied counseling/psychology research. Even though Garic's opinion is that of one counselor educator, it illustrates an attitude in the field that discourages the pursuit of NIH funding. Finally,Wampler (2010) indicated that marriage and family therapy doctoral training programs, for example, do not train their graduates to pursue external funding as well as psychology and child development programs. Wampler also added that this lack of training prevents marriage and family therapy untenured faculty from adhering to or planning for shifts in funding criteria and missions from federal and state funding agencies.

The counseling field's limited exposure to, pursuit of, and success in obtaining external funding is further aggravated by the placement of most counselor education programs in schools or colleges of education, or schools or colleges of allied health. Many other departments within these schools and/or colleges, such as special education, curriculum and instruction, nutrition, speech and language pathology, and human development and family studies, have a history of receiving federal, state, and/or private funding from a variety of agencies (e.g., the U.S. Department of Education, U.S. Department of Agriculture, NSF, NIH, U.S. Health Resources and Services Administration, or U.S. Substance Abuse and Mental Health Services Administration; Kleinhammer-Tramill, Tramill, & Brace, 2010; Loeb et al., 2008). Counselor education faculty should not feel discouraged in applying for grants from these agencies; however, it becomes a daunting task for counselor educators to compare their funded research records with those of their colleagues in, for example, special education departments when the federal government earmarks specific funds for special education research (Kleinhammer-Tramill et al., 2010).

One final challenge of pursuing and obtaining external funding experienced by academicians and researchers in most fields is the impact that it has on other responsibilities. Writing grants is a time-consuming process that can take away from time spent on course preparation, teaching, advising students, chairing dissertation committees, serving the profession, or writing manuscripts for professional publication. Furthermore, once a grant has been funded, the researcher is then tasked with accommodating the research goals and outcomes of the grant, as well as administering the day-to-day functions of the grant (e.g., managing research assistants, collecting data, budget accounting, communicating with community partners; Goss, 2004; Porter, 2004; Pruitt, Johnson, Catlin, & Knox, 2010). Therefore, counselor educators and other researchers should be ready and willing to commit a sizable amount of time to the many facets of funded research lest they be faced with unwanted consequences on other aspects of their job.

The challenge of balancing commitments to pursuing a funded research agenda with other aspects of being a professor are particularly impactful on new counselor educators (Borders et al., 2011). The first years of appointment as an assistant professor are typically consumed with preparing to teach courses and beginning to establish one's scholarship agenda, making the time-consuming pursuit of external funding all the more daunting (Porter, 2004). Porter (2004) further stressed that many junior faculty are "chagrined to learn that their employer has yet a third daunting expectation: sponsored research" (p. 6). Porter and Pruitt et al. (2010) expanded on the

notion of feeling overwhelmed in that junior faculty from engineering and counseling psychology backgrounds, with extensive training in external grant funding, also express feelings of stress. Consequently, junior faculty who may not have received extensive training or experience with external grant funding as part of their doctoral training are particularly prone to feeling stress when applying for external funding. This stress may be particularly troubling given that a cursory review of counselor education job announcements in *The Chronicle of Higher Education*, in *Counseling Today*, and on the American Counseling Association website reveals a trend toward the pursuit of external funds as a common expectation for new counselor education faculty. Even with formal training (e.g., course work and grant-writing experience), new faculty tend to be ill prepared to apply for external funding (Blair, Cline, & Bowen, 2007; Porter, 2004). Regardless of the challenges to counselor educators for securing external funding, there are steps that new and experienced faculty members can take to prepare themselves for the pursuit of sponsored research.

Steps to Funding Success

The following steps are merely intended to serve as suggestions for counselor education faculty, untenured and tenured alike, who want more information for pursuing and obtaining external funding. The steps can be applied to securing funding from sources within the institution and to private and public external sources. However, there is an underlying emphasis toward public, external funding because this process may be more uniform than private external funding from foundations or nonprofit groups, or internal funding sources at individual institutions. (See Appendix A for websites of prominent foundations.)

Step 1: Work With Personnel in One's Institutional Administrative Offices for Funding or Sponsored Programs

The first step for gathering information on funding agencies and for training in grant writing within one's university is to meet with the personnel in the administrative office or department that manages sponsored research. These administrative offices and departments are referred to by a variety of terms, depending on the institution. The purpose of this administrative entity on most campuses is to serve as a liaison between faculty members and funding agencies and to increase the research profile of the university. To this end, personnel in these administrative entities provide faculty members access to grant-writing workshops; meet and greets with funders; and, in some cases, trips to Washington, DC, to meet with federal program officers (individuals who oversee the awarding of research funds) or attend workshops sponsored by the funding agency. In addition, personnel within these administrative entities provide a range of grant-writing services, including editing grant proposals, developing grant budgets, and assisting with the administration of a grant once it has been awarded. Another important goal of these administrative entities is to help the grant applicant focus on the specific parameters of funding requests in an effort to keep the applicant's writing and research goals grounded in the funding agency's criteria and agenda.

An additional useful resource offered by these administrative entities is funding for internal grant applications. Typically, university-level offices of sponsored programs provide small, start-up funds for pilot projects or for secondary data analysis of primary data sets. The funds are usually reserved to pay for participant incentives, data analysis, or transcription services but are integral in helping faculty members establish beginning efficacy and feasibility of their research agenda, as well as for practice in writing grants, adhering to funding guidelines, and managing grant accounts. Internal funding also provides the novice researcher with experience in administering funds, as well as establishing a network of auxiliary services (e.g., transcriptionist for qualitative data, consultants to assist with instrument development, and participant compensation practices).

Step 2: Build a Research Team

A primary mistake that many new grant writers make is to submit a funding application alone or with another novice researcher (Loeb et al., 2008). Funding agencies perceive this decision as an example of researchers who are inexperienced and unaware of grant budgeting and administrative processes. To this end, it is important that beginning grant writers meet with and get support from individuals with successful records of obtaining external funding. These more experienced individuals may be colleagues in the same institution or at different institutions, as well as individuals in the health and human services fields or different fields altogether.

It is not surprising that external funders (private or public) increasingly expect grant applications to be written by multidisciplinary teams of researchers (Goss, 2004; Loeb et al., 2008; Shaw, 2002). External funders simply do not expect a single researcher to know all there is to know about an area of research or to be an expert in a topic, a skilled research methodologist, and/or a specialist in community engagement. On the contrary, external funders, depending on the grant application, tend to look favorably on research teams composed of members with expertise in complementary facets related to the research questions and goals, knowledge of relevant research analysis, or experienced in program evaluation. In addition, forming partnerships can extend to the researcher's becoming familiar with members of the local community who can facilitate access to data sets, community centers, and individuals willing to participate in a study as either participants or advisory panel members.

Although potential research team members can represent a variety of fields, counselor educators might consider beginning their collaborative efforts in the health and human services fields, including but not limited to nursing, public health, developmental psychology, social work, education, and medicine, because all of the aforementioned fields share a common bond of being considered fields in the area of health and human services (Woodside & McClam, 2011).

Step 3: Refine One's Research Agenda

To be successful in obtaining external funding, a researcher must learn to match her or his interests with the goals and priorities of the funding agency, usually outlined in the agency's call for proposals or strategic goals statements (Shaw, 2002). As a result, researchers are encouraged

to refine and refocus their research interests and agenda using the call for proposal as an organizational template. Refocusing your research agenda does not necessarily mean you must completely abandon your interests; however, if the researcher's funded or published research record is limited, the researcher may need to consider ways of incorporating different research literature or conceptual models into her or his research agenda. An example of expanding one's research agenda to support external funding efforts is outlined as follows.

The first author's research interests have focused on Latina/o children and adolescent mental health since his doctoral studies, specifically around determining the mental health and academic needs of Latina/o children in emerging Latino communities (see Villalba, 2003; Villalba, Brunelli, Lewis, & Wachter, 2007). However, despite little early success in securing external funding, his research interests were made known to a colleague in the school of nursing at his institution who was the principal investigator for an NIH project to study the health disparities in African Americans and Latinas/os. Initially the first author saw no correlation between an NIH-funded project on health disparities and his interest in Latina/o youth mental health. Yet it was the word *health* that tied his interests to the NIH-funded project. Because health disparities research is concerned with minimizing disproportionately high rates of illnesses in women and minorities (National Institute on Minority Health and Health Disparities, n.d.), there were more parallels between the first author's original research interest and his colleague's than were initially identified. In essence, the refocusing occurred when the first author reframed his research interest from the more narrow focus of *the mental health of Latina/o youth* to *research on health disparities*. Consequently, his research agenda is now the study of how health disparities (specifically mental health issues) manifest in emerging Latino communities. This has proven to be a fundable line of research.

Step 4: Understand Funding Request Parameters and the Researcher's Experience

Local, state, and federal granting agencies as well as private foundations fund projects at various levels, progressing from small grants of a few hundred dollars to very large grants of several million dollars. Funding agencies include provisions for funds to be used for direct costs and indirect costs. Direct costs are those funds provided to the project's principal investigator to conduct the required research activities to accomplish the goals outlined in an approved proposal. Indirect costs are funds provided to the principal investigator's institution, in addition to the funds provided for direct costs, which are used for what are called facilities and administrative costs. Indirect costs are usually a predetermined percentage of the direct costs awarded to the principal investigator, and these can range from 0% (if the grantor stipulates it as such in the call for proposal announcement) to 40% (typical for NIH grants) or more above and beyond the awarded direct costs. Because the NIH supports a substantial portion of funded research and projects, the following are suggestions for better understanding funding targets for this agency.

It is important for new researchers to pursue funding opportunities that match the extent to which their research agenda has been developed. For example, the NIH funds research projects through

the R03 funding mechanism, which is designed for research studies that test the feasibility of an intervention or to conduct pilot studies to determine the beginning efficacy of a treatment plan. Funding of these projects is limited to $50,000 for direct costs per year, for up to 2 years. R03-funded studies are intended to lay the foundation for larger scale projects in the future. For more developed research ideas that aim to test the efficacy of established theories, or for larger scale studies focused on testing the salience of innovative research treatments and interventions, the NIH uses the R21 funding mechanism. Funding for these projects is limited to $275,000 in direct costs over a 2-year period, and no more than $200,000 in direct costs can be awarded in a single year of the project. The R15 funding mechanism works a lot like that of the R21, but it is a funding mechanism limited to universities and colleges that historically have received a limited percentage of NIH funding dollars, thereby earmarking some funds for investigators at institutions with a smaller research profile. This is done to increase their likelihood of receiving NIH funding by eliminating the competition from researchers at institutions with established research profiles. The R15 grants also are available for up $300,000 in direct costs, for projects lasting up to 3 years. Finally, the R01 funding mechanism is used to fund large-scale, 3- to 5-year grants, typically to conduct epidemiological research or large-scale randomized clinical trials, with funding between $250,000 and $500,000 in direct costs per each year of the projects. R01 projects are typically built upon a long and strong history of funded R03 and/or R21 (or R15) projects. Knowing the parameters around funding levels, the researcher must determine which funding level is right for his or her research goals and overall research agenda. For more specific and up-to-date information on NIH funding options, criteria, and deadlines, counselor educators are encouraged to visit the NIH's Office of Extramural Research website (http://grants.nih.gov/grants/oer.htm).

It should be noted that most public funders (e.g., the NIH) encourage new researchers who have not received large amounts of external funding to designate themselves as "new investigators" or "new researchers" when applying for grants. For example, the NIH has two designations for new researchers: "New Investigator" and "Early State Investigator" (NIH, n.d.). These designations encourage grant reviewers to consider the applicant's grant-writing experience (or lack thereof) when considering the impact and novelty of the research project.

Step 5: Seek and Receive Extensive Feedback

One of the expectations from the publish-or-perish paradigm is that, typically, most manuscript submissions come back with extensive feedback for revision and resubmission; seeking external funding is no different. Also, just as editorial board members' comments and suggestions for revising and resubmitting a manuscript should be viewed as opportunities to improve the writer's work, so should comments from grant reviewers be viewed. Furthermore, most revision and resubmission opportunities include detailed comments from a journal's editor in chief, as do grant proposal comments. This feedback should therefore be considered as the best method for increasing the likelihood of receiving funding for a grant proposal once it has been resubmitted.

Adhering to this feedback is extremely important because most grantors limit the number of times a specific grant can be resubmitted. For example, the NIH limits the times that the same grant application can be submitted to two (NIH, n.d.). For this reason, it becomes crucial for grant applicants to get as much feedback as possible for their grant applications before they submit a grant to the NIH for the first time. Grant applicants also are encouraged to speak with individuals at their sponsored programs' offices for assistance in reviewing a grant application or, at the very least, securing a reference to an external editor or to blind external reviewers. It would be advantageous if the editors/reviewers have served on a grant review panel for the funding agency to which the grant application is being submitted, because these individuals have firsthand knowledge of the type of information and organization often valued by the agency's grant review panels. In addition, grant administrators in large granting institutions, such as the Department of Education's Institute of Education Sciences, provide consultations to grant writers and may even provide editorial assistance. The type of feedback to be expected from an external editor/reviewer should be honest and thorough, because there is little to be gained from a reviewer who does not scrutinize every grant purpose detail, data-collection plan, or budget line item.

Step 6: Serve on Grant Review Panels

A key strategy for becoming familiar with the grant process—and thereby improving the quality of one's own grant applications—is to serve as a grant proposal reviewer. Grant review panel members are tasked with reviewing, scoring, and making recommendations for the projects that should be funded. Colleges and universities typically have an internal grant review panel, and it is advantageous for interested grant writers to find out more about becoming a review panel member for internal grants at their institution. This experience can lay a foundation for serving on grant review panels for external foundations and agencies. Furthermore, most federal agencies will send out member solicitations for grant review panels via their electronic mailing list or postal mailing list.

Grant review panels are composed of various numbers of experts in particular fields of interest to the granting agency. Grant review panel members are usually tasked with reviewing and scoring grant applications over a short amount of time. Depending on the size of the funding organization, the number of grant applications received, the time lines for awarding funds, the number of members in a review panel, and the number of review panels, a grant review panel member can have from 1 week to a couple of months to review a few to a few dozen grant applications. Sometimes grant panel review members are compensated for their time, usually paid a certain amount for each reviewed application, but that depends on the funding organization. In addition to reviewing and scoring grant applications on their own, grant review panel members are typically required to meet with their panel, oftentimes called "paneling," to reach consensus of the merits of grant applications. Paneling occurs in person (or via the telephone or videoconferencing), is usually moderated by a panel chairperson with previous experience as a panel member for the granting agency, and occurs after all panel members have

had time to score their assigned grant application. Overall, serving as a grant review panel member is a time-consuming process, yet is one that provides valuable experience to a different side of the funding process.

Step 7: Contact Program Officers

All requests for grant applications by a federal agency are connected to a specific office or organization within that agency. Furthermore, each agency office or organization is composed of several programs that focus on specific research areas. Consequently, each of these research area programs has program officers who are tasked with setting the agenda for the program and ensuring that the mission and focus of the particular program coincides with the organization's mission. Therefore, it is important that the researcher contacts specific program officers once he or she has established that the particular program's mission is connected with the individual's research focus (Shaw, 2002). One need not have one's whole project ready and planned. In fact, it is better to begin a dialogue with a program officer early in the development of the research plan to ensure that the project aligns, as much as possible, to the program's mission. It can be intimidating for novice researchers to contact a program officer; however, one must keep in mind it is in the program officer's best interest to find, guide, and support innovative ideas and projects for his or her respective programs. Therefore, the relationship between the program officer and the new researcher is a mutually beneficial one and one that hinges on the new researcher. This step and the previous one can assist the grant applicant in gaining insight into areas that may be a priority for the organization in the near future, which helps the applicant to shape the direction of his or her grant proposal.

Step 8: View Grant Writing as a Multiyear Process

Because the grant-writing process is time consuming, it is important for grant writers to view the pursuit of external funding for research as a component of their long-term research agenda, a multiyear endeavor with several opportunities for growth. Therefore, the development of a fundable grant proposal should not be seen as a quick or "one-shot" process, but one that takes time to nurture and develop.

At the very least, moving through the process of obtaining a funded large-scale grant takes up to 2 years. The 1st year might be spent pursuing internal funding within the grant writer's institution to pilot a particular intervention, conducting exploratory focus groups on a new idea, or becoming familiar with basic theoretical models in a new line of research interest. The 2nd year can then be spent networking with experts in the field, meeting with community liaisons with access and insight to particular problems and interventions, learning about novel interventions in the literature, establishing partnerships with local organizations and associations that work with potential study participants, exploring data-collection practices and tools to address the research questions, having the project approved by the grant writer's institutional review board, and writing the grant application. Even after a grant application is completed, submitted, and

awarded funds, it often takes 6 or more months before the grant applicant is allowed to start a federally funded study. The NIH (n.d.), for example, will not allow a grant applicant for the October application cycle to start work on the grant until the following July.

Overview of Federal Funding Agencies

To increase success in securing external funding, one must become familiar with funding organizations, both public (federal) and private. There are many national, private, nonprofit foundations (e.g., the Robert Wood Johnson Foundation, The Pew Charitable Trusts, the Ford Foundation) that fund health and human development projects, in addition to state and local foundations that fund projects related to mental health and wellness. Because of the multitude of private foundations that provide funds for external grant opportunities and the differences in funding requirements, the following discussion focuses on federal organizations. Nevertheless, a good place to begin to identify private funders is the Community of Science website (http://www.cos.com), which serves as a clearinghouse for thousands of funding opportunities from multiple countries (see examples at http://fundingopps.cos.com/news/).

The following is a description of three federal agencies (and counseling-related research focus areas) of relevance to counselor educators. Websites for each of these agencies and organizations within various agencies are included in Appendix B. The list, although not exhaustive, provides information for further investigation.

NIH

Composed of 20 institutes and seven centers that fund and disseminate health-related research projects, the NIH funds more than $30 billion of research activities every year. They offer a variety of funding mechanisms, from small, short-term projects (i.e., R03) capped at $50,000 in direct costs per year up to long-term, million-dollar clinical trial projects (i.e., R01) that can last up to 5 years. They also offer "early career" awards that encourage new researchers to become experts in their research area through separate funding mechanisms (i.e., K awards, which support career development opportunities for researchers), as well as separate training and fellowship grants (i.e., T and F awards). (*Note*. K awards support career development opportunities for researchers so they can focus on their research agendas full time. T awards are grants that fund training programs, such as postdoctoral programs; furthermore, the grants provide funds for postdoctoral students and researchers to receive additional training at the NIH. F awards are fellowships for predoctoral and postdoctoral students.) Also, although most researchers are familiar with waiting to find out about new requests for applications (RFAs) that announce grant competitions for special projects, more than 75% of NIH grant applications are researcher-initiated projects that use "parent" grant applications (L. Weglicki, personal communication, December 3, 2009). Finally, the NIH typically reviews grant applications three times a year, which are linked to three separate sets of deadlines each year. Because different

funding mechanisms have different deadlines, it is crucial for an interested applicant to become aware of application due dates that correspond with the specific funding mechanism.

DOE

The DOE funds a variety of research and training grants, designed to further lines of inquiry and educator preparation aimed at improving academic success and increasing educator effectiveness. Counselor educators can focus on either applying for training and program grants from one of the many offices with the DOE (e.g., the Office of Safe and Drug-Free Schools, Office of Innovation and Improvement, Office of Elementary and Secondary Education) or applying for research grants from the DOE's Institute of Education Sciences (IES). IES can be of particular interest to counselor educators because the agency funds research in two areas related to counseling research: social and behavioral context for academic learning and postsecondary education.

The funding options for the DOE are not as numerous, clear, or detailed as they are for the NIH; however, there is a range of funding options for researchers requesting smaller to larger sums of funds. For example, IES offers applicants an opportunity to apply for "exploration grants" (typically capped at 2 years and $400,000 in direct costs) to test the feasibility of research designs, or researchers can apply for "development and innovation" grants (typically capped at 5 years and up to $1.5 million in direct costs) to field test new interventions that promote academic success. An important consideration related to DOE and IES grants is that there is typically a short time frame between RFA announcements and the due dates for submitting completed grant applications (typically just 2 to 3 months between the time the grant application packets are available and applications are due). For this reason, counselor educators interested in applying for DOE and IES grants are encouraged to check the respective websites on a regular basis.

NSF

The NSF has an annual budget of roughly $7 billion to fund studies in the areas of science, technology, engineering, and math (STEM). The NSF is structured as 12 separate organizations (or program areas), each with its own focus on topics such as biology, engineering, education, or geosciences. These broad research focus areas facilitate the NSF's ability to fund projects on topics as diverse as climate change, economics, cybertechnology, and space exploration.

Of particular interest to the NSF over recent decades has been finding more effective methods to increase the number of underrepresented minorities (i.e., African Americans, Latinas/os, and Native Americans) and women in the STEM fields. As a result, the NSF has funded several projects to increase minority students' enrollment in and completion of college majors leading to STEM careers. The projects have included providing scholarships for underrepresented minority high school graduates to pursue STEM majors, as well as researching the moderators and mediators that affect the selection of STEM careers for middle and high school female students. A research focus on STEM careers could be of interest to counselor educators, particularly those

in the area of school counseling. Specific information on budget limits, time limits, and deadlines can be determined by visiting the websites for each of the related program areas.

Conclusion

Obtaining external funding for research is both an increasingly important professional activity for counselor educators and a complex one. Although educators in the field of counseling have not historically been active in large-scale funded research, forays into this area should not be viewed as beyond the grasp of counselor educators. It is clear that learning the process of producing quality grant applications requires a considerable investment of time; however, the payoff for such effort is higher quality research and thus increased relevance and credibility for researchers in the counseling field.

To achieve such goals, the field should consider a few strategic initiatives. First, a national interest network dedicated to the pursuit of externally funded research could provide needed education and support. Second, a greater emphasis should be placed on grant writing within the counseling literature and professional meetings/activities. Third, the American Counseling Association should be encouraged to sponsor grant-writing activities, workshops, seminars, and webinars. Also, new counselor educators should negotiate directly for support (including training, travel, and consultation) for grant-writing activities when considering job offers, and these endeavors should be supported by senior faculty members in those departments. Furthermore, research to examine the pressure that counselor educators experience to obtain external funding is warranted. Finally, counselor educators working in doctoral programs should be more intentional in teaching grant-writing skills and topics. Counselor educators might consider the contents in this and similar articles as a primer for doctoral students enrolled in research courses. Furthermore, counselor education programs with a doctoral training component could design a course or workshop in grant writing for doctoral students, which is what many special education doctoral programs offer to their students (Kleinhammer-Tramill et al., 2010). Concerted efforts such as these should help increase the research profile of the field of counseling and counselor education, while simultaneously increasing the impact and applicability of counseling research.

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APPENDIX A

Websites for Prominent Foundations of Interest to the Counseling Field

Bill & Melinda Gates Foundation http://www.gatesfoundation.org

Charles Stewart Mott Foundation http://www.mott.org

Ford Foundation http://www.fordfoundation.org

Foundation for Child Development fcd-us.org

Lumina Foundation http://www.luminafoundation.org

The Pew Charitable Trusts http://www.pewtrusts.org

Robert Wood Johnson Foundation http://www.rwjf.org

Spencer Foundation http://www.spencer.org

William T. Grant Foundation http://www.wtgrantfoundation.org

W. K. Kellogg Foundation http://www.wkkf.org

APPENDIX B

Websites for Federal Funding Agencies of Interest to the Counseling Field

National Institutes of Health	http://www.nih.gov
National Institute of Child Health & Human Development	http://www.nichd.nih.gov
National Institute of Mental Health	http://www.nimh.nih.gov
National Institute of Nursing Research	http://www.ninr.nih.gov
National Science Foundation	http://www.nsf.gov
U.S. Department of Education	http://www.ed.gov
Institute of Education Sciences	ies.ed.gov
Office of Elementary and Secondary Education	http://www2.ed.gov/about/offices/list/oese/index.html
Office of Innovation and Improvement	http://www.ed.gov/oii-news
Office of Safe and Drug-Free Schools	http://www2.ed.gov/about/offices/list/osdfs/index.html