

## **Rehabilitation Nursing Foundation Tips: Guide to Writing a Research Proposal**

Seasoned researchers, as well as persons with little or no experience in writing research proposals, may find these tips helpful in preparing the Rehabilitation Nursing Foundation [RNF] Grant Application. The RNF grant program is competitive and this Guide represents just one strategy in preparing a research proposal.

### **I. Strategies for Success**

Writing a research proposal for any funding agency, such as the RNF, is a matter of persuasion. Let's assume that the reviewer or reader is a busy, impatient, skeptical person who has no reason to give your proposal special consideration and who is faced with many more requests than can be funded, or even read thoroughly. This reviewer wants to find out quickly and easily the answers to these questions.

- What do you want to do, how much will it cost, and how much time will it take?
- How does your proposed study relate to the RNF's Research Agenda?  
[www.rehabnurse.org/about/ResearchAgendaFlyer.pdf](http://www.rehabnurse.org/about/ResearchAgendaFlyer.pdf)
- What difference will your study make to practice, organization or agency, the nursing discipline, the state, the nation, the world, or whatever the appropriate categories are?
- What has already been done in the topic area of your study?
- What methods will be use to collect data and how will the results be evaluated?
- Why should you, rather than someone else, pursue this research study?

These questions will be answered as you write your proposal.

#### Preliminary Steps.

The RNF provides detailed instructions at [www.rehabnurse.org/research/rnfgrant.html](http://www.rehabnurse.org/research/rnfgrant.html) for the preparation of a research proposal (including forms). Obviously, such instructions should be studied before you begin and followed carefully in writing your RNF research proposal.

Although the following steps are not required, you may benefit by consulting:

- professional colleagues that are knowledgeable in research processes and funding tactics, such as researchers listed as members of the Association of Rehabilitation Nurses (ARN), university faculty colleagues, and/or organizations' directors of research or members of grant departments.
- RNF/ARN staff member Nicole Wallace at 1-800-229-7530. She can answer your questions related to the application process and review deadlines for the application.

- RNF representatives at the ARN Education Conference to discuss your area(s) of research interest and procedures for the application process.

Information listed on the ARN Web site and these persons can provide valuable help and advice both in substantive and administrative matters related to your grant application.

## **II. The Parts of a Research Proposal**

The following outline and explanation concern chiefly the components of a research proposal.

### **Typical parts of a research proposal are**

#### **Title (or Cover) Page** [www.rehabnurse.org/research/summary.html](http://www.rehabnurse.org/research/summary.html)

- The title of the research project sets the tone for what follows. The title is part of the required RNF cover page.
- A good title is almost always a compromise between conciseness and explicitness. Titles should be comprehensive enough to indicate the nature of the proposed study, but they should also be brief. One way to cut the length of titles is to avoid words that add nothing to a reviewer's understanding, e.g., "A Study on...," "Investigation in...," or "Research on problems or issues in...."

#### **Abstract** (see [www.rehabnurse.org/research/abstract.html](http://www.rehabnurse.org/research/abstract.html))

- The RNF application requires an abstract and every proposal, even very brief ones, should have an abstract. Some reviewers read only the abstract, and most readers rely on it initially to give them a quick overview of the proposal and later to refresh their memory of its main points. The RNF/ARN often use the abstract alone in their compilations of research projects funded or in disseminating information about successful projects.
- Though it appears first, the abstract should be written last, as a concise summary of the proposal (approximately 250–350 words).
- To present the essential meaning of the proposal, the abstract should define the research problem, state the significance of the research, and present the research methodology and plan for analysis.
- An abstract is the most important single element in the proposal. The abstract represents the proposal when it is separated from it and provides the reviewer with a first and last impression of the request.

#### **Table of Contents**

- Although not required for the RNF application, a table of contents is an organizational tool to make the proposal reviewer friendly. The convenience of the reviewer should be the guiding consideration in preparing the table of contents and the applicant may want to include this component. The table of contents lists all major headings of the proposal

(including the abstract, even though it precedes the table of contents). Subdivisions or minor headings usually need not be listed.

### **Statement of the Problem**

- This section includes the description of the problem, its significance to rehabilitation nursing, a concise and critical review of current literature, the research question(s), objectives, and any hypotheses.
- The introduction of a proposal should begin with a brief statement of what is being proposed and then should proceed to introduce the subject to an outsider or layperson. Do not assume that your reviewer is familiar with your subject. The introduction should give enough background to enable the reader to place your particular research problem in a context of common knowledge and should show how its solution will advance the field of rehabilitation nursing. Be careful not to overstate, but do include a very specific statement of what the importance of your research is. An explanation of underlying assumptions for your research can be helpful for the reviewer.
- Literature reviews should be selective but critical. Reviewers do not want to read through a voluminous working bibliography. Reviewers want to know the especially pertinent works and your evaluation of them. A list of works with no clear evidence that you have studied them and have no opinions about them contributes very little to your proposal. Discussions of work done by others should lead the reader to a clear impression of how you will be building upon what has already been done and how your work differs from theirs. It is important to establish what is original in your proposal's approach, what circumstances have changed since related work was done, or what is unique about the time and place of your research study.
- You also need to explain your research question(s) or the hypothesis(es) that you will be using.
- The general tone of the introduction should reflect your self-confidence. Sharing your excitement for the proposal is not out of place, but most reviewers dislike lavish promises.

### **Methodology**

- This section describes the research setting and the approach to the research question(s). At a minimum, include a description of the sample population, variables, data collection, procedures, instruments, analysis, and implications. A precise timeline illustrating project tasks and objectives to be completed in less than 2 years is required. If the research design is qualitative, corresponding methodology and scientific rigor are expected.
- Research design is a large subject and cannot be covered in its depth here, however, a few reminders concerning frequently mishandled aspects of proposals may be helpful.
- Be realistic in designing your study. Overly optimistic notions of what the project can accomplish in 1 or 2 years will only detract from the proposal's chances of being

approved. Usually the comment most frequently made by reviewers is that the research plans should be scaled down to a more specific and manageable project that will permit the approach to be evaluated and that, if successful, will form a sound basis for further work. Thus, your proposal should distinguish clearly between long-range research goals and the short-range objectives for which funding for this study is being sought. Oftentimes it is best to begin this section with a short series of explicit statements listing each objective, in quantitative terms if possible.

- If your first year must be spent laying groundwork, spell that out as Phase 1. Then at the end of the year you will be able to report what you have accomplished and that you are ready to undertake Phase 2.

—Be clear about any assumptions or hypotheses the research method rests upon.

—Be explicit about the focus of the research. Define the limits, especially in exploratory or experimental work; it is helpful to pose the specific question or questions this project is intended to answer.

—Be very specific about the means of evaluating the data or the conclusions. Try to imagine the questions or objections of a critical reviewer and show that the research plan anticipates them.

—Be certain that connections between the research objectives and the research method are evident. If a reviewer fails to see this connection, your proposal will most likely not be given further consideration. It is better to state the obvious than to risk the reviewer's comment that you have not thought carefully enough about what your particular methods or approach can be expected to demonstrate.

## **References**

- This section cites bibliographic information in the proposal and is placed at the end of the text.
- The style of the bibliographical item itself is displayed in the current American Psychological Association's (APA) format. The main consideration is consistency; the format should be followed scrupulously throughout.

## **Project Budget**

- A budget for the entire project must be submitted. If RNF funds are to be used for only a portion of the budget, identify the specific items for which you seek support. Identify remaining items to be funded from other sources and in-kind contributions. Clearly describe those sources of funding or support in addition to the amount you are seeking from each entity.
- This section must specify the direct costs associated with the research.
- Neither indirect costs nor travel expenses to conferences for presentations are funded by RNF.
- Neither the principal investigator's salary nor the purchase of a computer will be funded unless significant justification is provided in proposal.

- Note contributed funds, personnel, or indirect allowances.
- The budget must represent sufficient funds to complete the project.
- Because funds are not distributed in one sum, the principal investigator should propose a strategy for the receipt and distribution of funds during the length of the project. The strategy should facilitate the conduct of the study and may be done on a semiannual basis, by expense voucher, by task or objective, or by another means.
- Be as detailed as possible about the schedule of the proposed work. When will the first step be completed? When can subsequent steps be started? What must be done before what else, and what can be done at the same time? For complex projects a calendar detailing the projected sequence and interrelationship of events often gives the RNF assurance that the investigator is capable of careful step-by-step planning.
- The funding year shall begin in January following the awarding of the grant at the ARN educational conference.

### **Personnel**

- Clearly specify the principal investigator for the project who will be the grant recipient responsible for the conduct of the study. Indicate the rehabilitation nursing activities and contributions of the principal investigator. Describe the functions of all personnel involved with the project.

—If there are co-investigators or consultants, describe fully the contributions of each to the project.

- Include the curriculum vitae of the principal investigator, all co-investigators, and consultants. If applying for the New Investigator Grant, include brief Curriculum Vitae of any advisors and mentors.

### **Setting**

- Obtain written approval of the administrative officer of the institution or agency in which the proposed study will be conducted (Administrative Approval Form located at [www.rehabnurse.org/research/approval.html](http://www.rehabnurse.org/research/approval.html)).

### **Review and Approval**

- The principal investigator must provide proof of review and approval by his or her institution's Human Subjects Review Board or Institutional Review Board (IRB) and approval by an educational institution or the institution where the research will be conducted.
- Pending approval will not disqualify a proposal for review, but final approval must be given before the grant is awarded.

### **Appendices**

- Include citations of supportive information and data collection tools. Include any or all of the following in the Appendices:  
Appendix A: Measurement Instruments

- Appendix B: Human Subjects and/or Animal Subject Approval
- Appendix C: Consent Forms
- Appendix D: Institutional Agreements
- Appendix E: Curriculum Vitae and Other Supporting Documents

### **III. Dealing with Short Deadlines**

The ideal scenario in writing a proposal is to have time and leisure to methodically follow this proposal outline. It is more common to discover that a proposal deadline is only a month away, your co-workers are on vacation, and you are left with their work to do, a whole proposal to write, and a hint of seasonal flu. If you find yourself in this situation, several orderly procedures can be slighted, but the following steps emerge as important:

- First, start (do not finish) with reading the RNF Guidelines. Mark with sticky notes or a colored highlighter as you study these Guidelines, noting such things as the submission deadline, number of copies, where to mail, and so on. The Guidelines will also specify certain topics or questions that must be addressed.
- Second, after you have studied the Guidelines, if there are sections that seem either too vague or too specific for comfort or convenience, check with the ARN/RNF office representative to see if she has a clarification.
- Third, break the proposal up into small and simple subsections—especially if more than one person will be writing. Give each subsection headings and subheadings (referring again to the Guidelines), and write strictly to this outline. Use subheadings liberally to help you organize your material and guide reviewers through your perhaps not altogether flawlessly organized narrative. In order to facilitate last-minute corrections in the typed copy, start new sections and major subsections on new pages and do not number pages, except lightly in pencil, until the last step.
- Fourth, compare your budget and your text to insure that for every cost item there is a corresponding activity that is mentioned and justified in the text.
- Fifth, pay special attention to the abstract. Having hurried through the narrative, you will find that careful construction of the abstract will serve both as 1) a summary of what you intend to do and 2) a check on whether you have omitted any essential areas.

### **IV. Why Proposals Are Rejected**

Assuming that funds are available, the success of the RNF proposal will depend both on the quality of the study itself and the quality of its presentation in the proposal.

- Different reviewers, of course, will weigh merits and defects differently, but the following list of shortcomings of 605 proposals rejected by the National Institutes of Health is worth pondering.

- The list is derived from a classic article by Dr. Ernest M. Allen (Chief of the Division of Research Grants, National Institutes of Health) that appeared in Science, Vol. 132 (November 25, 1960), p. 1532-34. (NOTE: The percentages given total more than 100 because more than one item may have been cited for a particular proposal.)

#### A. Problem (58 percent)

1. The problem is not of sufficient importance or is unlikely to produce any new or useful information. (33.1)
2. The proposed research is based on a hypothesis that rests on insufficient evidence, is doubtful, or is unsound. (8.9)
3. The problem is more complex than the investigator appears to realize. (8.1)
4. The problem has only local significance, or is one of production or control, or otherwise fails to fall sufficiently clearly within the general field of health-related research. (4.8)
5. The problem is scientifically premature and warrants, at most, only a pilot study. (3.1)
6. The research as proposed is overly involved, with too many elements under simultaneous investigation. (3.0)
7. The description of the nature of the research and of its significance leaves the proposal nebulous and diffuse and without a clear research aim. (2.6)

#### B. Approach (73 percent)

1. The proposed tests, or methods, or scientific procedures are unsuited to the stated objective. (34.7)
2. The description of the approach is too nebulous, diffuse, and lacking in clarity to permit adequate evaluation. (28.8)
3. The overall design of the study has not been carefully thought out. (14.7)
4. The statistical aspects of the approach have not been given sufficient consideration. (8.1)
5. The approach lacks scientific imagination. (7.4)
6. Controls are either inadequately conceived or inadequately described. (6.8)
7. The material the investigator proposes to use is unsuited to the objective of the study or is difficult to obtain. (3.8)
8. The number of observations is unsuitable. (2.5)
9. The equipment contemplated is outmoded or otherwise unsuitable. (1.0)

#### C. Investigator (55 percent)

1. The investigator does not have adequate experience or training for this research. (32.6)
2. The investigator appears to be unfamiliar with recent pertinent literature or methods. (13.7)
3. The investigator's previously published work in this field does not inspire confidence. (12.6)
4. The investigator proposes to rely too heavily on insufficiently experienced associates. (5.0)
5. The investigator is spreading him/herself too thin; he will be more productive if he concentrates on fewer projects. (3.8)
6. The investigator needs more liaison with colleagues in this field or in collateral fields. (1.7)

#### D. Other (16 percent)

1. The requirements for equipment or personnel are unrealistic. (10.1)
2. It appears that other responsibilities would prevent devotion of sufficient time and attention to this research. (3.0)
3. The institutional setting is unfavorable. (2.3)

4. Research grants to the investigator, now in force, are adequate in scope and amount to cover the proposed research. (1.5)

Adapted from:  
Rehabilitation Nursing Foundation, *Research*  
[www.rehabnurse.org/about/researchfoundation.html](http://www.rehabnurse.org/about/researchfoundation.html)  
University of Michigan, *Proposal Writer's Guide* by Don Thackerey  
[www.research.umich.edu/proposals/pwg/pwgcomplete.html?print](http://www.research.umich.edu/proposals/pwg/pwgcomplete.html?print)

## **V. Other Proposal Development Tools**

The following Web sites are offered as adjunct resources in writing a research proposal. Please note that some Web sites may move or other excellent sites may not be listed. You may want to perform a Google search to uncover more strategies for writing research grants: [www.google.com](http://www.google.com).

### **Writing a Grant Proposal from the Center for Participatory Change**

<http://www.cpcwnc.org/Toolbox/writinggrants.html>

### **Writing a Good Grant Proposal from Simon Peyton Jones and Alan Bundy**

<http://research.microsoft.com/users/simonpj/papers/Proposal.html>

### **Guide for Proposal Writing from the National Science Foundation**

[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf04016](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf04016)