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# Editorial

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## AAHB Initiative to Establish Doctoral Research Competencies: A First Step

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A recent report from the Institute of Medicine<sup>1</sup> (IOM) noted that the complex interplay of biological, psychological, behavioral, and social determinants of human health and disease can be fully understood only from an interdisciplinary perspective. The report also noted that although intervention studies have successfully changed health behavior over short periods of time, there remains a pressing need for multi level interventions to demonstrate maintenance of long-term behavior change and its relationship to reductions in morbidity and mortality. Without a fundamental understanding of the determinants of health behavior and the nature of effective intervention, practice cannot methodically advance. The IOM conclusions present significant opportunities and challenges to health behavior researchers, but at the same time, these conclusions raise questions about the capacity of the health promotion and disease prevention field to address them. The current insufficiency

in research capacity underscores the need for clearly articulated doctoral-level criteria to train and mentor the next generation of health behavior researchers.<sup>2</sup> Unfortunately, at this time there are few standards available to guide doctoral-level research training in health promotion and disease prevention.

This paper discusses some of the challenges our field faces with regard to quality research and describes a new effort the *Academy* has begun to address them: The Initiative to Establish Doctoral Research Competencies. Our aim is to promote a dialogue within the *Academy* about these issues, with the goals of creating a model for research methods training and establishing a set of core competencies for excellence in health-behavior research training. Although all doctoral programs have a research component, a variety of degrees are conferred upon those engaged in health behavior research (PhD, EdD, DrPH, ScD, HSD). The Initiative will not attempt to create differential sets of competencies for different degree designations.

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### **The Carnegie Foundation's Principles of Stewardship**

To understand developments in doctoral education generally, it is instructive to review recent work of the Carnegie Foundation for the Advancement of Teaching,<sup>3</sup> which has attempted to answer the question "What is the purpose of the doctoral education?" (The Carnegie Foundation does not distinguish between PhD and other doctoral degrees.) Their attempt to answer this question led to the establishment of a set of principles that

can be briefly summarized as follows:

1) Those who hold the PhD degree are “stewards of their discipline.”<sup>3</sup> Such individuals work not only to preserve the foundations of their discipline, but they also are concerned about its future development and are willing to take risks to move the discipline forward, particularly with an eye toward preparing future leaders.

2) At its heart, the PhD is a research degree.<sup>3</sup> Recipients of this degree should be able to demonstrate they have conducted research and scholarship that meets standards of credibility and verifiability and makes a unique contribution to the field. This does not mean that doctoral degree recipients would not be expected to pursue excellence at teaching or administrative and service tasks, only that competency in research is a *sine qua non* of the field, and that it would be the foundation for excellence in other areas.

3) In their discipline, PhD holders should be able to assess, critique, and defend knowledge claims.<sup>3</sup> Their professional *raison d'être* is the creation and dissemination of knowledge.

4) In their discipline, PhD holders should understand which ideas to discard and which to keep.<sup>3</sup> Within the confines of the research endeavor, as theories are developed they should be tested; those that are not supported should be discarded or modified. Merely collecting data to support rather than test theory does not reflect well on the profession and does not advance thinking in the field.

5) PhD holders should be able to communicate their ideas to both technical and lay audiences.<sup>3</sup> Information that cannot be communicated to others does not enlighten them or advance the field.

The Carnegie Foundation acknowledges that higher education has not consistently applied these principles to doctoral education and contends that a major problem is the lack of a pedagogy of research. That is, many doctoral programs have not properly designed “experiences to teach students to become excellent researchers.”<sup>3</sup> (p.1) Thus, there is a need for a training *model* to organize core research competencies. Such a model cannot be expected to be fully applied to all doctoral programs in our field, but it can provide (a) a framework for preparing health behavior researchers (b) a rationale for strengthening the faculty research capacity in an academic program and (c) planning assis-

tance to academic departments that wish to launch a doctoral program.

### **A Glimpse Into the Current State of Research Training**

The Carnegie Foundation’s call for a revitalization of doctoral-level research training appears to be well-founded. A nonsystematic review of more than a dozen websites of national professional organizations in health promotion, public health, the behavioral sciences, and measurement and evaluation (conducted by the first author) revealed a wide variety of research information and research agendas. There is, however, no indication that many other professional organizations are actively involved in efforts to identify doctoral-level research competencies for their disciplines.

Some academic disciplines have accreditation standards for doctoral programs. A review of various accreditation documents reveals, however, that stated standards for research methods are usually described by ill-defined statements that might not represent excellence in research training. For instance, the doctoral standards from one accreditation body are limited to 2 general statements: (a) “design and implementation of quantitative research and methodology, including univariate, multivariate, and single-subject design” and (b) “design and implementation of qualitative research and methodology, including grounded theory, ethnographic, and phenomenological methodologies.”<sup>4</sup>(p.40) Vague phrases such as these provide relatively little direction to a graduate student hoping to become an excellent researcher. Existing doctoral accreditation standards for research methods appear in some cases to accommodate existing faculty resources or interests, rather than establish standards for research training excellence. These specific observations are consistent with the broad critique of the Woodrow Wilson National Fellowship Foundation, which notes that current views on doctoral education in the United States represent complacency.<sup>5</sup> The Wilson Foundation argues that new practices need to be adopted in doctoral education to encourage “adventurous” research.<sup>5</sup>

A large number of academic departments, representing a variety of disciplines, have identified competencies for master’s degree programs (including the

MPH). In general, the specification of master's-level competencies appears to be far greater than those for doctoral programs. Typically, doctoral competencies make general references to "research skills" without much description or specification.<sup>6-11</sup> Thus, there is a need for at least some of the disciplines that prepare students at the doctoral level for health-behavior research roles to specify a set of core research competencies or provide a model for research methods training.

### **The Initiative to Establish Doctoral Research Competencies**

The broad goal of the Professional Development Council of the *Academy* is to enhance the research capacity of the current and future AAHB membership and to provide leadership on research issues in the broad field of health behavior and health promotion. One way to accomplish this goal is to strengthen doctoral-level research training. The Professional Development Council's Initiative on Doctoral Research Competencies has set in motion a process of creating a model for research methods training and establishing a set of core competencies for promoting excellence in health behavior and health promotion research.

There is great variation in the philosophical belief systems of university graduate faculty. However, doctoral-level research training should ensure sound preparation in the use of evidence-based approaches (quantitative and qualitative methods). As the field advances through the creation of new knowledge, theory change, and technological progress, existing standards related to research skills will become obsolete, so this effort must be fluid and ongoing, rather than static. There will be a need to revisit the competencies regularly to determine if they are relevant not only to the work that is being done, but also to the work that lies ahead. In addition, given that much NIH-funded research is coordinated by master's-level researchers, future work of the Professional Development Council may need to be directed toward the development of competencies for master's-level research degrees.

The process of the Initiative will be guided by 4 main beliefs. First, the Carnegie Foundation's Principles of Stewardship will serve as an organizing framework for the development of doctoral-level research competencies. Second, the com-

petencies will challenge our field to endorse a verifiable standard of excellence for doctoral-level research training, rather than one based on ambiguous, minimal, or trendy thinking. Third, the process will generate a model for research training that clearly identifies the learning experiences needed for helping doctoral students become excellent researchers while allowing for the variation and specialization necessary for the variety of functions and interests of health behavior researchers. Fourth, special emphasis will be given to developing a model that emphasizes the importance of professional integrity and ethics in all phases of research and research activity.

### **Why Proceed Now?**

In a 2000 editorial<sup>12</sup> in this journal, Werch noted that although the *Academy* was in its infancy, it had "the potential to enhance the growth and stature of health education and promotion through impacting the critical need to advance the research base of the profession."<sup>12(p.5)</sup> Three years later, the *Academy* has established itself as a viable and credible professional organization for health behavior researchers. The important administrative tasks related to maintaining membership and sponsoring annual scientific meetings are being well managed by a dedicated group of *Academy* members. This groundwork has positioned the *Academy* for further development.

A Steering Committee for the Initiative on Doctoral Research Competencies has been established to provide guidance on the process of creating a model for research methods training and establishing a set of core competencies. The Committee will consist of a number of *Academy* members with a variety of training backgrounds, research philosophies, and fields of study. Completion and distribution of the Initiative's first report is anticipated in 2004. As the work progresses, AAHB members will be solicited for their input on this important work. Additionally, those with concerns or questions should share these with members of the Steering Committee. ■

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