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Research Briefs

Pharmacoeconomics and outcomes research degree-granting PhD programs in the United States

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Abstract

Background: Evidence is missing on showcasing current practices of degree programs specific to the field of pharmaceutical outcomes research.
Objectives: To measure current practices of pharmacoeconomics and outcomes research PhD programs in the United States and synthesize recommendations for improving the success of programs and prospective students.
Methods: A 23-question online survey instrument was created and distributed to 32 program directors identified in the International Society for Pharmacoeconomics and Outcomes Research educational directory. Descriptive statistics summarized both the program characteristics (including observed and desired number of faculty and students) and training recommendations (traits of program and student success).
Results: Of 30 eligible programs that conferred a PhD in pharmacoeconomics, pharmaceutical outcomes research, or a related field, 16 respondents (53%) completed the survey. Seventy-five percent of respondents were located in a school of pharmacy. The average observed number of faculty (7.5) and students (11.5) was lower than the average desired numbers (8.1) and (14.7), respectively. Reputation of faculty research and a collaborative environment with other disciplines were rated highest for a program's success. Faculty's mentoring experience and reputation and student funding opportunities were rated highest for prospective students' success.
Conclusions: Existing and emerging programs as well as prospective students can use these findings to further their chances of success.

Keywords: Outcomes research; Pharmacoeconomics; Graduate training; Education; PhD programs

Introduction

Outcomes research is an applied discipline of the relationship between health care interventions and patient outcomes, spanning clinical, humanistic, and economic outcomes.[1] Outcomes research, by its definition, is multidisciplinary.

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In regard to pharmaceutical outcomes research in particular, study design and methods include epidemiology and pharmacoepidemiology; economics and health economics; health or drug policy; public health; and other social and administrative sciences as they relate to health care. Pharmacoeconomics is a discipline related to outcomes research focusing on health technology assessment and aims to evaluate clinical, economic, and humanistic aspects of pharmaceutical interventions that can aid efficient allocation of health care resources.[1]

Training programs in outcomes research and pharmacoeconomics may be identified through a number of sources. The American Association of Colleges of Pharmacy provides a listing of economic, social, and administrative sciences PhD programs on its Web site.[2] While this lists programs within schools of pharmacy, programs outside pharmacy schools also exist, such as many of those listed in the educational directory of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Web site.[3]

Several studies have investigated the growth and status of pharmacoeconomic and/or outcomes research education in the United States. A study published in 2000 surveyed U.S. institutions of pharmacy and found that 26 PhD programs in pharmacoeconomics and outcomes research existed, with 136 full-time students enrolled, an increase since a previous 1994 survey.[4,5] Farley et al[6] investigated the funding of economic, social, and administrative sciences PhD training in U.S. pharmacy institutions. This study reported that 91% of programs guarantee funding to incoming students and 85% of these students graduate from the program. Rascati et al[7] described a need for pharmacoeconomic education as well as a need for published information about pharmacoeconomic education existing outside of pharmacy schools. The aforementioned studies described the growth of training programs within schools of pharmacy. However, no known studies have used the ISPOR educational directory as a population of inference; ISPOR is the prominent society in pharmacoeconomics and outcomes research and contains programs both within and outside of schools of pharmacy.

The study objective was to measure current practices of pharmacoeconomics and outcomes research PhD programs in the United States and synthesize recommendations for improving the success of programs and prospective students from the perspective of program directors.

Methods

Study population

The study population was identified from the 32 U.S. degree programs listed in the educational directory of the ISPOR Web site[3] (12/09). Programs were included if the respondent affirmed that the program conferred a PhD in pharmacoeconomics, pharmaceutical outcomes research (a definition was provided[1]), or a related field.

Survey outcome measures, design, and implementation

The survey outcome measures were characteristics of PhD programs and their faculty and students, as well as their rating of attributes important to the quality and success of PhD programs and of PhD student training in this field. Outcome measures of the survey included location of the program, differences in the time the program had existed, core training areas, students' previous education, counts of faculty, and students' career sectors postgraduation. Questions were also asked about the number of students who were currently enrolled, ever enrolled, completed, or opted not to complete the program. A focus of the study was to assess the values regarding components important for a program's success and consideration by future students. The survey asked what attributes of a pharmacoeconomics or outcomes research PhD program are most important for its success and quality and also what attributes should be considered by students before entering a program from the perspective of the program director.

The 23-question survey instrument was designed and implemented using Zoomerang (MarketTools, San Francisco, CA).[8] Most survey items used drop-down boxes or lists of choices to decrease respondent burden. Two questions regarding characteristics important to PhD programs were presented. The first asked what attributes of a program are most important for its success and quality. The second asked what attributes should be considered by students before entering a program. For each of these questions, 6 attributes were listed with a corresponding 10-point scale, where 1 represented "not important" and 10 represented "essential." Respondents rated each attribute on the 10-point scale.

The survey was implemented by e-mail invitation to the individual listed on the ISPOR Web site for each of the 32 programs. In some cases, this individual forwarded the invitation or redirected