

Original Article

Who wants to enroll in health care PhD programs? An analysis of a nationwide graduate destination survey

Ying-Ju Pan^a, Lung-Sheng Lee^{a,b,*}

^aDepartment of Technology Application and Human Resource Development National Taiwan Normal University, Taipei, Taiwan, ROC

^bNational United University, Miaoli, Taiwan, ROC

Received December 5, 2011; accepted February 15, 2012

Abstract

Background: PhD training is important for national human resource development in the era of the “knowledge economy”. However, it is not clear what factors are associated with the decision of a master’s degree graduate to pursue a PhD degree in health care, including medicine, public health, and nursing. It is postulated that the intention to pursue a PhD degree in health care is associated with a graduate’s attributes, academic publication, socioeconomic status, and extent of financial support.

Methods: A cross-sectional investigation was conducted to analyze data from the 2007 nationwide graduate destination survey in Taiwan. Logistic regression with a forward stepwise model selection strategy was applied to identify those significant factors related to the intention of master’s degree graduates to pursue a PhD degree in health care. The predictive validity of the selected model was evaluated using the receiver operating characteristics curve analysis.

Results: Of the 1668 master’s degree graduates who responded to the survey, only 240 (14.4%) indicated a desire to pursue a PhD degree. Seven factors are identified to be independently associated with the intention to pursue a PhD degree in health care, including female gender [odds ratio (OR) = 0.18, 95% confidence interval: 0.13–0.26], more than 2 years in graduate school (OR = 0.46), working during graduate school (OR = 0.47), submission of conference and journal articles (OR = 1.61 and 1.48, respectively), tuition source, and parents’ educational level. The predictive validity of the selected model was 0.77.

Conclusion: These findings provide an overview of potential PhD students in the field of health care. Based on this assessment, effective strategies need to be developed to attract and retain qualified candidates, as well as other types of PhD students who are in demand in this field. Copyright © 2012 Elsevier Taiwan LLC and the Chinese Medical Association. All rights reserved.

Keywords: career choice; graduate education; health care; human resource development

1. Introduction

The fundamental goal of PhD programs is to cultivate independent and leading researchers who are able to adapt to diverse work in academic, industrial, and other professional environments.¹ PhD student training is important for health care education and academics.² Traditionally, the PhD held a remarkable position among academic credentials as a symbol of advanced study and academic training, and as

a key element in new knowledge creation. Further studies of doctoral students have focused on several topics, including supply and demand,³ incentives for students and supervisors,⁴ diversity of doctorates,^{5,6} and other factors associated with the completion of doctoral programs such as gender,⁷ supervisory mentoring,⁸ and financial support.⁹ However, to our knowledge, there is still a dearth of research that specifically assessed factors that influence individuals to apply to health care doctoral programs. Despite the rapid growth of interest in master’s programs in Taiwan, little is known about whether and why these students intend to pursue PhD degrees after completion of their master’s degrees. Therefore, the aim of this study was to identify the factors associated with the

* Corresponding author. Dr. Lung-Sheng Lee, Office of the President, National United University, 1, Lienda, Miaoli 360, Taiwan, ROC.

E-mail address: lslee@nuu.edu.tw (L.-S. Lee).

intention of master's degree graduates in health care to obtain a PhD, through data analyses of the nationwide Graduate Destination Survey (GDS) in Taiwan. This annual follow-up survey provides a good source of information to explore factors related to the intention of master's degree graduates to enroll in health care PhD programs. For example, Drennan¹⁰ has conducted a survey to investigate the professional and academic destinations of master's degree graduates in nursing. After a review of the literature, it is postulated that the intention to pursue a PhD degree in health care is associated with graduates' attributes, academic performance, socioeconomic status, and the extent of financial support. Through the analysis of GDS 2007, factors related to the goal of becoming a PhD in health care could be identified, and valuable information could be generated to provide insights into PhD training in the health care professions.

2. Methods

2.1. Data collection

The data analyzed in this study were obtained from GDS 2007, part of the Taiwan Integrated Postsecondary Education Database (<https://www.cher.ntnu.edu.tw>), which is constructed and maintained by the Center for Educational Research and Evaluation, National Taiwan Normal University, and sponsored by the Department of Higher Education of the Ministry of Education since 2005. The aim of the GDS project is to collect longitudinal data of higher education graduates and construct a valid and reliable database to illustrate their present circumstances, and the trends of their destinations before and after graduation, to be used as a reference for related decisions and reforms in education, human resource, and the economy and industry in Taiwan. Information is gathered annually through distributed questionnaires. In this study, factors associated with the intention of master's degree students to enroll in health care PhD programs were investigated by using data from the 2007 GDS. The fields of health care in this study include medicine, public health, pharmacology, rehabilitation, nutrition, nursing, biotechnology and laboratory science, and dentistry.

The 2007 GDS was a census survey which included 51,427 graduates who earned their master's degrees that year. Note that according to the statistics from the Ministry of Education, the number of master's degree graduates in 2007 reached 54,387 (<http://www.edu.tw/statistics/index.aspx>). The questionnaire survey was conducted soon after graduation. There were 2587 (5%) health care graduate students recruited into this survey, and 2036 of them responded to the survey questionnaire, with a response rate of 78.7%. Of the respondents, 368 male graduates (18.1%) were preparing to serve their conscription-based military duty after graduation and were excluded from further analyses. The remaining 1668 respondents were further classified into two groups. One group was composed of graduates who would choose to pursue a PhD degree (14.4%), and the other group contained the remaining 1428 graduates. Factors included in the survey were school type, gender, graduate school

admission, years in graduate school, attendance of cram school for entrance examination, work during graduate study (i.e., receiving in-service graduate education), multidisciplinary thesis, participation in academic community, conference paper submission, journal article submission, award-recipient designation, granted patent, source of tuition and living expenses, and the educational level of parents. These baseline characteristics are presented in Table 1.

2.2. Data analysis

Statistical comparisons of baseline characteristics between the two groups mentioned earlier were performed using chi-square tests. Univariate logistic regression model was used to evaluate the effects of miscellaneous factors included in the survey on master's degree graduates' intentions to pursue a PhD in health care. The odds ratios (OR) and 95% confidence intervals (CI) were calculated for each factor. Individual Wald statistics were also reported. Afterward, a stepwise model selection strategy, based on likelihood ratio test with the entry criterion of 0.05 and removal criterion of 0.1, was used to select statistically significant influential factors of the intention to pursue a PhD degree in health care. In order to evaluate the predictive validity of the selected model, receiver operating characteristics (ROC) curve analysis was applied, and the area under the ROC curve (95% CI) was computed.¹¹ All statistical analyses were conducted using the PASW Statistics 18 (SPSS Inc., Chicago, IL, USA).

3. Results

3.1. Baseline characteristics of the study population

Table 1 compares baseline characteristics between the PhD-oriented and non-PhD-oriented groups. There was no significant difference in the distribution of school type, graduate school admission, multidisciplinary thesis, and participation in the academic community between the two groups. However, the proportion of male gender and attendance rate of cram schools for entrance examination of graduate schools were significantly higher for the PhD-oriented group. Moreover, the non-PhD-oriented group had significantly higher proportions of respondents spending more than 2 years in graduate school and on the job but had a lower submission rate of conference papers than their counterparts. In general, parents' educational level of the PhD-oriented group is significantly higher than those of the non-PhD-oriented group. It was also noted that a larger proportion of graduates in the PhD-oriented group had their tuition and living expenses paid for by their parents or relatives than those in the non-PhD-oriented group.

3.2. Univariate analysis

Table 2 illustrates the associations of miscellaneous factors with the intention to pursue a PhD degree in the univariate analysis. Among these factors, female gender and additional

Download English Version:

<https://daneshyari.com/en/article/3476843>

Download Persian Version:

<https://daneshyari.com/article/3476843>

[Daneshyari.com](https://daneshyari.com)