EXPLORING AN INNOVATIVE MULTIDISCIPLINARY HEALTHCARE CURRICULUM: A PARTNERSHIP OF THE COLLEGES OF BUSINESS, LAW, ENGINEERING, AND HEALTH SCIENCES

Kathleen L. McFadden, College of Business, Northern Illinois University, Barsema Hall 328, DeKalb, IL 60115, 815-753-6374, kmcfadden@niu.edu
Shi-Jie(Gary) Chen, College of Engineering, Northern Illinois University, 590 Garden Rd. EB 234 DeKalb, IL 60115, 815-753-1221, gchen@ceet.niu.edu
Donna J. Munroe, College of Health & Human Sciences, Northern Illinois University, Wirtz 227, DeKalb, IL 815-753-9532, dmunroe@niu.edu
Jay R. Naftzger, College of Law, Northern Illinois University, Swen Parsons 270, DeKalb, IL, 815-753-1080, jnaftzger@niu.edu

ABSTRACT

The current challenges for healthcare leadership require an understanding of diverse disciplines to include not only medicine but also business, law, engineering and technology. Yet, in many organizations, healthcare executives may have a limited exposure to the integration of knowledge from these disciplines. This study explores the creation of an educational program in healthcare policy and management that would bring a unique multi-disciplinary approach to healthcare management education. We build on prior research by surveying healthcare executives to examine their perceptions on such a program. The findings provide directions for developing a multi-disciplinary healthcare program that would fill a need for healthcare executive education in the future.

INTRODUCTION

Healthcare executives face an environment fraught with ever-increasing complexity. Few would argue that anticipating and managing current regulatory and financing issues are daily challenges. Fostering an organizational culture that demonstrates understanding of the work of professionals is also critical. The healthcare setting typically relies on medical, business, technology and legal professionals to accomplish its goals. However, the education of these professionals is radically different, leading to a “silo” mentality that defies organizational cohesion. Healthcare executives need to possess the ability to bring together these professionals in collaborative practice that can support the goals of the organization. To do so effectively, the organization needs healthcare executives trained through an interdisciplinary educational process that exposes them to the unique culture, language and practices of these disciplines.

Interdisciplinary curriculum proposals have focused upon various healthcare professionals. Walrath et al. [3] described an interdisciplinary curriculum for quality improvement among physicians, nurses, and healthcare administrators. They developed and evaluated a four week program that addressed a) health care system structure and its effect on hospital functioning, b) financing and purchasing of health care and its effect on health care delivery, c) hospital organization, culture and financing effect on quality improvement, and d) application of concepts through a quality improvement project. While the project assisted learners to develop
competencies in systems thinking and quality improvement techniques, the major barrier to ongoing implementation was the time commitment needed to complete the program in the workplace. Shewchuk et al.[2] surveyed healthcare administrators and academics to determine the five most critical issues having the greatest impact on healthcare executives. The five issues defined by healthcare executives were a) management, b) patient interests, c) political, legal, and environmental concerns, d) medical issues, and e) financial and economic issues. Similarly, White et al. [4] surveyed alumni and identified four competency factor domains. Their list included leadership, communication, business skills, and technology. In examining the literature, it seems that effective healthcare leadership demands an understanding of diverse disciplines. Yet, in many organizations, healthcare executives may have a limited exposure to the integration of knowledge from these disciplines.

Crow et al. [1] developed a conceptual model for a graduate program in healthcare administration that focused on eleven multi-disciplinary core subject areas. Specifically, the subject areas were: Analytical Foundations, Accounting and Financial Management, Economics and Essentials of Quantitative Analysis, Marketing, Operations and Quality Management, Organizational Behavior and HR Management, Health Management Technology, Policy Analysis and Response, Legal Environment and Ethical Issues, Epidemiology and the Language of Healthcare, and Strategic Management. The study identified several barriers to better acceptance of healthcare education programs by executives, such as lengthy completion time, too many prerequisites, and expensive tuition. We built on this research by surveying healthcare executives to examine their perceptions about the importance of these subject areas as well as the perceived need for such an interdisciplinary program.

Our team consisted of one professor from four colleges within our university: Business, Health and Human Services, Law, and Engineering. We formulated the following research questions:

1. Is there a need for an interdisciplinary healthcare policy and management program for health care executives?
2. What are the most important subject areas that should be included in the program?
3. What specific topics within each subject area are most important to include in the program?
4. What program structures and formats are of greatest interest to healthcare executives?

METHODS

To address our research questions, we surveyed senior healthcare executives. To improve the clarity and reduce any ambiguity of the questions, the initial survey instrument was pilot tested on a group of healthcare executives and lawyers in the local area. The first section of the survey asked respondents about their assessment of the overall need for an interdisciplinary healthcare policy and management program. The second section focused on the program structure, and format options. The respondents were instructed to evaluate their level of interest in the items using a 5-point Likert scale. The third part focused on curricular design, specifically on subject areas and topics within each possible course offering. For clarification, a description of each topic was provided in a glossary to the survey. The subject areas used in our survey were drawn from Crow et al. [1] and the topics within each subject area were based on feedback received from faculty members who currently teach similar courses within each subject area. The final section of the survey asked demographic information of the respondents.
We utilized a database of healthcare clients obtained from a healthcare consulting firm. The finalized survey was sent to all 433 healthcare executives on this list. The population of recipients consisted of senior executives holding a position as CEO, CFO, or CNO within a healthcare organization. A total of 254 recipients had email addresses, and the remaining 179 had only USPS addresses. A letter was sent via USPS to the email recipients alerting them they would be receiving an email, including a link to a web-based survey. In an attempt to increase the response rate, two separate follow-up emails were also sent approximately two weeks apart. The 179 persons without an email address were sent a letter via USPS that included a paper survey along with a postage-paid return envelope. In the letter was a link so recipients could respond electronically, if they preferred. From the email listing, 46 messages were returned as undeliverable, and one of the USPS addresses was returned as undeliverable. Forty-one surveys were received from 14 states, yielding a response rate of 10.6%.

In an attempt to further improve our response rate, we distributed 98 surveys to attendees at the 2008 American College of Healthcare Executives Conference in Chicago. A total of 37 questionnaires were completed, yielding a response rate of 37.8% for this second sample. The overall response rate for the survey with both samples combined was 16.1%. A series of $t$-tests were conducted on all 127 continuous variables within the survey to examine the possibility of response differences between the two samples. Only 8 of these 127 tests emerged as statistically significant; consequently, we decided to combine the two samples for analysis.

The majority of respondents were male, between the ages of 31 to 65, with an average age of 52 years. About 86% held some type of advanced degree and had an average of 22 years of experience in healthcare management. They were positioned in small, medium and large healthcare organizations in the United States.

**RESULTS**

Approximately 70% of the healthcare executives surveyed said that a multi-disciplinary program was appealing or very appealing to them personally, 68% said they would encourage others in their organization to enroll in such program, while 40.3% said they would enroll themselves. Over 60% of the respondents also indicated there was a high or very high need for a multi-disciplinary program targeting new healthcare administrators and/or healthcare executives, including CEOs.

The mean ratings for the perceived importance of each of the eleven subject areas from Crow et al. [1] ranged from 3.04 to 3.67 on a 5-point scale. Strategic Management, Organizational Behavior/Human Resources and Operations/Quality Management received the highest mean importance rating. The respondents also provided useful guidance regarding their interest in potential topics within each subject area. The specific course topics with the strongest interest were strategic planning, improving customer satisfaction, quality management and patient safety.

About one third of the respondents had high or very high interest in programs offering either continuing education units (CEUs) or professional development, with 26.9% indicating high or very high interest in a 12–15 hour certificate program. In terms of possible delivery formats, the strongest interest was in an asynchronous (available anytime) online delivery format (29.9% high or very high interest) followed by a hybrid delivery format that would blend face-to-face and online teaching (20.8 % high or very high interest).
DISCUSSION AND RECOMMENDATIONS

This study provides empirical support for the development of an interdisciplinary healthcare policy and management program for healthcare executives. Respondents expressed significant interest and indicated they would encourage others within their organizations to enroll. This latter finding is noteworthy, given that respondents were predominantly high level executives.

Another important finding of this study is the identification of subject areas that should be included in a multi-college healthcare policy and management program. Although Crow et al. [1] developed a conceptual model for a program in healthcare administration, it was not empirically tested. Through the use of a survey methodology, this study validates the use of that model for inclusion in an interdisciplinary healthcare curriculum. Respondents indicated at least moderate importance for all of the Crow et al. [1] subject areas. In addition, we extended the model by including specific topics within each subject area and identified the most important topics to include in a multi-college healthcare policy and management program.

Planning and actual implementation of such a curriculum will be challenging. Educational leaders must change their thinking of how programs are structured in universities. Currently, many universities have separate colleges that rarely interact and often compete for scarce resources. A major challenge for an inter-disciplinary program is defining who has ownership and whether group ownership is realistic. An interdisciplinary program also requires faculty who can break from the “silo mentality” of colleges, and be able and willing to adapt to a new, interdisciplinary way of thinking about teaching courses. Moreover, true interdisciplinary programs may require team teaching, and developing a team course is typically much more time consuming and challenging for faculty members. To truly integrate course content, group decision-making and collaboration are necessary. Overcoming faculty resistance may be a challenge. Providing incentives for faculty participation will be critical to program success.

Future studies could focus on determining the actual target audience for this type of program and explore ways to encourage faculty to participate in interdisciplinary teaching. Hopefully such research will eventually lead to the creation of educational programs in healthcare policy and management that are truly cross-disciplinary and fill the need for interdisciplinary training of healthcare professionals in the future.

REFERENCES


