Chapter 33

The Efficacy of Continuing Education Technology for Public Health Physicians Practicing in Remote Areas

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ABSTRACT

This chapter is an investigation to determine the receptivity of family physicians to new technologies of continuing learning. Family physicians that were active members of the Tennessee Academy of Family Physicians (TAFP) served as the research group for this study. A response rate of 55% was achieved. Most responding family physicians perceived that Continuing Medical Education (CME) activities affect their practice of medicine. This study revealed that physicians thought the CME activity must be relevant, applicable, and the content and quality important to the learner for participation by distance education. Computer usage via the Internet, CD ROM, and email are being used more frequently and have a higher degree of receptivity by public health physicians than non-computer generated modalities. It is recommended that specialized marketing efforts, online Web-based courses, CD ROMs, and other modes of distance education delivery could change the level of interest in using distance education as a viable option for CME.

INTRODUCTION

Continuing Medical Education (CME) is considered to be the best way to increase the professional competence of practicing physicians. The challenge for physicians today is one of keeping up with the rapid change in information technology, changes that has been well documented by many authors (Sagan & Leighton, 2010). The historic goal of CME for public health physicians has been to exchange information so that physicians can remain current with the latest developments in medical and scientific information (Rosof & Felch, 1992; Wentz & Harrison, 1994). This information explosion has challenged CME professionals to provide opportunities for transfer of this new knowledge to physicians in the most effective manner (Gebbie, Raziano, & Sterling 2009).

According to Gebbie and others, public health physicians particularly have experienced competing and sometimes conflicting demands due to the constant addition of new information and emerging technologies that have changed their practice (Gebbie, Raziano, & Sterling 2009).

In this new environment professional competency is no longer limited to knowledge, skills, and performance. Physicians who formerly functioned in isolated practices, are now required to integrate into medical systems and to be part of teams. Increasingly the transition to medical teams and systems integration has placed demands on physicians that they have not been prepared to handle (Arah, Ogbu, & Okeke, 2008; Rivo, 2000).

Family physicians are also faced with the limited numbers currently practicing family medicine and the increasing average age of those in family medicine as well as the limited number practicing in rural areas (American Academy of Family Physicians. 1999). Other complicating considerations have been an increased number of physicians in group practices, advances in medical technology, increased demands of certifying boards, and an emphasis on research as it related to managed care outcomes (Moore, Green, Jay, Leist, & Maitland, 1994; Wentz, & Harrison, 1994). With increased consumer demands for improved patient care, many medical units have forced physicians to implement and continue with their medical education, forcing CME providers to evaluate current mechanisms for CME delivery and the development of new ones (Gillette, 1999).

The utilization of distance education, especially the internet, have shown promise for solving the problems busy physicians have to access new information. Curran, Hoekman, Gulliver, Landells, and Hatcher in two volumes published in 2000 (a,b) and Peterson (1999) have identified distance education as an instructional tool capable of exploring, enabling, and linking physicians, curriculum, and new technologies. Other studies by Petty and Carter (2011) and Petty and Loboda (2011) trumpet the advantages of online learning.

BACKGROUND

In today's managed care environment, family physicians and primary providers are the backbone of an ideal health care system (AAFP, 1998). Unfortunately, the availability of primary care providers has remained problematic, particularly in rural areas. Only small numbers of physicians selected rural practice and the retention of those choosing a rural community became a challenge due to the draw of the urban environment. Rural physicians face professional isolation and the number of rural hospitals also has declined compounding the shortage of health professionals (Puskin, 1992). Gruppen, Wolf, Van Voorhees, and Stross's (1987) indicated that primary care physicians use colleagues and "educationally influential" physicians in the community as resources as for sources of information.

Distance education has long brought the latest information directly into the physician's setting. For more than 25 years, telecommunications technologies including interactive video, telemedicine, and computers have been promising tools that have

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