

## Theoretical Framework for Implementing a Managed Care Curriculum for Continuing Medical Education—Part I

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### Abstract

Healthcare reform has created a new working environment for practicing physicians, as economic issues have become inseparably intertwined with clinical practice. Although physicians have recognized this change, and some are returning to school for formal education in business and healthcare administration, formal education may not be practical or desirable for the majority of practicing physicians. Other curriculum models to meet the needs of these professionals should be considered, particularly given the growing interest in continuing education for physicians in the areas of managed care and related aspects of practice management. Currently, no theory-based models for implementing a managed care curriculum specifically for working physicians have been developed. This paper will integrate diffusion theory, instructional systems design theory, and learning theory as they apply to the implementation of a managed care curriculum for continuing medical education. Through integration of theory with practical application, a CME curriculum for practicing physicians can be both innovative as well as effective. This integration offers the benefit of educational programs within the context of realistic situations that physicians can apply to their own work settings.

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Healthcare reform, with its accompanying rapid expansion of managed care, requires changes in the way that reimbursement for medical services and medical outcomes are evaluated.<sup>1</sup> In addition, physicians must learn and apply managed care strategies in their medical practice in order to continue to effectively provide services for patients.<sup>2</sup>

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The dramatic changes in physician practice management mandated by managed care necessitates the successful diffusion of an educational innovation—a managed care curriculum—for continuing medical education (CME). In turn, the successful adoption of a managed care curriculum for physicians requires an integrated approach that uses aspects of diffusion theory, instructional design theory, learning theory, and organizational theory.

A curricular framework for continuing professional education must recognize the value of presenting a varied selection of educational activities that cover the entire scope of practice, including management issues, “to encourage professionals to discover what they should, but do not know.”<sup>3</sup> Current reports on physician performance compiled by managed care companies show that the need for physician education programs on managed care is widespread.<sup>2</sup> The model curriculum presented here, in conjunction with the suggested implementation strategies, offer CME providers the opportunity to create a learning environment for practicing physicians that will lead to increased knowledge of managed care principles. Innovative continuing medical education curriculum will enable practicing physicians to benefit from hands-on training and real-life situations that are applicable to their everyday work.<sup>1</sup>

### Goals of the Managed Care Curriculum

The primary goal of the managed care curriculum for CME is to provide practicing physicians with knowledge on how managed care influences both reimbursement and clinical outcomes. A secondary goal is to create a learning environment that will facilitate internalization of this new information, so that it is implemented in physician performance.

Although a concrete goal is a necessary starting point in curriculum development, goals alone are insufficient to guide implementation. It also is essential to provide a clear description of what the curriculum will look like from an operational perspective.<sup>4</sup> Provid-

ers of CME must believe that presenting the content of a new managed care curriculum for physician participants is something that reasonably can be accomplished. Thus, to gain support from potential providers, a managed care curriculum must be an innovation that can be adopted through the application of diffusion strategies.

### Diffusion of a New Curriculum as an Innovation

According to Rogers,<sup>5</sup> the diffusion process comprises the following elements: the innovation, the communication channels, time, and the social system. Each element must be carefully considered and used effectively in the process of developing and implementing a new managed care curriculum.

*The Innovation.* Rogers<sup>5</sup> defines an innovation as "an idea, practice, or object that is perceived as new." The perceived novelty of an innovation is subjectively based on whether the idea seems new to a particular individual or group. For many physicians, the idea of managed care is still quite new. Even current medical school graduates are not being prepared for a practice increasingly dominated by managed care.<sup>6</sup> Therefore, a managed care curriculum for practicing physicians is an innovation.

An innovation is more likely to be adopted if it is perceived to have advantages over what currently is in use. It must be both compatible with the physicians' values and easy to use. It also should be tested in a pilot project or other experimental condition, so that the results are visible to others.

*Communication Channels.* The social system of a physician group is influenced greatly by professionalization. The social system of any physician group is impacted by certain characteristics of the individual physicians. For example, individual physicians may express varied degrees of willingness to accept or promote acceptance of a managed care curriculum. These varied degrees of willingness to accept such a change are typically described as adopter categories. Rogers<sup>5</sup> describes five adopter categories—innovator, early adopter, early majority, late majority, and laggard—that parallel Houle's<sup>7</sup> descriptions of practitioners as innovators, pacesetters, those in the middle majority, and laggards.<sup>8</sup> Degrees of adoption of change among professional practitioners can be interpreted according to both the adoption categories and Houle's descriptions of practitioners.

Successful adoption of a managed care curriculum requires strategies that use what is known about communication channels within the diffusion process. For example, the more cosmopolitan CME providers in a

group may have more exposure to managed care as a result of their communications with physicians or healthcare administrators outside the group. These individuals can serve as catalysts to promote the idea of a managed care curriculum, and to act as change agents within the group.

However, to maintain momentum for the new curriculum, support must be obtained from the early adopters, or pacesetters. Successful implementation of a new managed care curriculum for a CME audience cannot succeed without this group's approval and support. After these opinion leaders adopt the curriculum, the majority of the group soon should follow. According to Rogers<sup>5</sup> the combination of "early" and "late" comprises 68% of a group. The potential to influence this proportion of a CME planning group highlights the key role that the early adopters play in the success of the diffusion process.

*Time.* If the momentum of the innovation adoption process is lost, potential CME providers will cease to believe that the curriculum can be accomplished within a specific time frame. If the proposed curriculum seems overly complex or difficult to visualize at completion, the diffusion process most likely will disintegrate. In addition, given the administrative and financial constraints placed on the CME provider group, time is a critical issue in the planning process for CME programs.

*The Social System.* Successful adoption of a managed care curriculum for CME requires an understanding of social and organizational theory as it applies to both institutions or groups that provide CME and to physicians as a community of professional learners.

Within the social context, organizational influences play a significant role in the diffusion process. Adoption of a new managed care curriculum can be influenced by many factors. For CME providers, perceived potential for the program's success based on attendance and evaluations is a valid concern.

Conflicts may occur in the relationships between potential program sponsors (eg, hospitals or health maintenance organizations [HMOs]) and physician participants. The compliance theory of Etzioni<sup>9</sup> offers a useful model for understanding the relationship between the potential provider organizations, such as hospitals, and potential physician participants. Compliance theory is based on the interaction between an organization's use of power and the participant's level of involvement. In this case, hospitals or HMOs may be perceived to exert power over physicians by creating an environment in which aspects of clinical performance become intertwined with physician income.

Etzioni describes organizational power as coercive, remunerative, or normative, and participant involvement as alienative, calculative, or moral. According to the theory, each type of power is congruent with a particular type of involvement. When power and involvement are incongruent, the participant's commitment to learn is inadequate to permit internalization of the information presented. Clearly, because a CME provider wants the information to be internalized, congruence between power and involvement are essential. In this case, the ideal congruence would be normative power with moral involvement.

Although Etzioni's compliance theory does not account for external influences, as does the open systems theory of Katz and Kahn,<sup>10</sup> it describes important considerations relating to the successful adoption of a managed care curriculum within the context of the physician's work environment.<sup>9</sup> The model highlights the importance of gaining support through the use of opinion leaders in order to have a congruent match between normative power and moral involvement. If physicians participate in the managed care curriculum because of their own personal interest and commitment to the importance of the information, then a successful outcome is more likely to occur. Herzberg's work,<sup>11</sup> as applied to business and industry, supports Etzioni's compliance theory because it emphasizes the importance of intrinsic factors as motivators.<sup>9</sup> These models illustrate the importance of avoiding mandates or punitive coercion as methods to attract physician participants.

### Continuing Professional Education Perspectives

Physician participation is a vital issue that will influence CME providers' perceptions of a new managed care curriculum.<sup>9</sup> It must offer educational benefits and advantages for potential physician participants that will give CME providers some assurance of successful implementation. If the new managed care curriculum provides visible results in the form of favorable evaluations, improved financial reports, and better clinical outcomes data at the participants' institution, then adoption can be expected to be ongoing (adoption can be "provisional" and may not continue if value and benefits are not continued). However, implementing a successful managed care curriculum that leads to measurable changes in performance, while highly desirable, may be difficult to demonstrate empirically. In the context of actual practice, those functioning as continuing educators operate in a "hot action" environment, characterized as varied, brief, and fragmented.<sup>12</sup>

In the Integrated Practice Perspective (IPP) model, for example, influences of the continuing educator's organization, society, personal values, work roles, and proficiencies represent a multidimensional perspective of the complexity of planning and implementing a CME curriculum for managed care.<sup>12</sup> This complexity supports the need to integrate aspects of diffusion theory, instructional systems design, learning theory, and organizational analysis theory in order to achieve a multidimensional perspective. This perspective then forms the context in which development of the instructional design occurs.

Table 1 illustrates a model curriculum for a managed care program that can be offered to practicing physicians. It incorporates the theoretical aspects of instructional systems design theory and learning theory as discussed in this paper. (Practical application of Section IV of the model is discussed in the second part of this two-part article, "Application of the Problem-Based Learning Model for Continuing Professional Education: A Continuing Medical Education Program on Managed Care Issues.") Table 2 provides a plan for implementing the proposed curriculum that is based on diffusion theory and organizational analysis. This proposed curriculum and implementation plan offer one of many potential options that CME providers might consider.

### Instructional Systems Design for CME Managed Care Curriculum

Instructional systems design theory provides a framework for developing a managed care curriculum with the potential to achieve specified educational goals. Use of instructional systems design provides the continuing educator with a method to identify specific aspects of the managed care curriculum that can be broken down into tasks and objectives for additional analysis.

A recent survey<sup>13</sup> of instructional systems designers' use of design activities identified 11 activities that were common to the instructional systems design models: (1) conduct needs assessment; (2) determine whether training will fill need; (3) write learning objectives; (4) conduct task analysis; (5) identify types of learning outcomes; (6) understand trainees' (participants') entry skills and characteristics; (7) select instructional strategies for training; (8) develop test items; (9) select media format; (10) pilot test instruction before completion; and (11) conduct a follow-up evaluation of the training.

These activities provide a framework for the development of an instructional systems design for a CME managed care curriculum. Current emphasis in in-

**Table 1.** Curriculum for Managed Care Program

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| <p><b>Target Audience:</b> Practicing physicians</p> <p><b>Learning Goals:</b> After completing the curriculum, participating physicians will be able to:</p> <ul style="list-style-type: none"> <li>■ Read and interpret financial and clinical outcomes data pertaining to their medical practice</li> <li>■ Describe relationships between medical outcomes and managed care reimbursement</li> <li>■ Describe potential ethical issues that arise from the relationships between medicine and managed care</li> <li>■ Identify potential areas of medical practice within their control that may negatively affect practice outcomes</li> </ul> <p><b>Prerequisite Skills and Knowledge</b><br/>None, but must be a practicing physician. Physicians who currently are involved in managed care are preferred. (Physicians with current managed care contracts are preferred on the assumption that members of this group will be highly motivated to participate.)</p> <p><b>Core Curriculum</b></p> <p><b>I. Introduction to Managed Care</b></p> <p>Objectives</p> <ol style="list-style-type: none"> <li>1. Define key terms used in managed care</li> <li>2. Describe various managed care models</li> <li>3. Describe relationship between outcomes data and managed care</li> </ol> <p>Instructional Strategies</p> <ul style="list-style-type: none"> <li>■ <b>Inquiry Training.</b> Instructor <i>gains attention</i> by introducing puzzling and discrepant scenarios (eg, "Your medical practice has just been purchased by a for-profit HMO corporation and the promised increased patient volumes have not occurred). Instructor <i>provides the learning objectives and stimulates recall of prerequisite learning</i> (eg, basic assumptions of the traditional medical model of healthcare). Instructor presents <i>stimulus materials and learning guidance</i> in the forms of "yes" or "no" responses to participants' inquiry questions. Participants eventually build hypotheses about the materials presented. Instructor <i>provides feedback</i> by guiding discussions about lines of inquiry that were most effective.</li> <li>■ <b>Concept Formation.</b> After participants' interest has been activated, additional Section I content can be presented, using concept formation strategies to identify and categorize pertinent managed care terms. These concepts can be elaborated in small group discussions that use case studies, which are presented to the entire class for critique.</li> </ul> <p><b>II. Financial Reporting for Capitation and Managed Care</b></p> <p>Objectives</p> <ol style="list-style-type: none"> <li>1. Describe various methods of physician payment</li> <li>2. Interpret financial reports</li> </ol> | <p>Instructional Strategy</p> <ul style="list-style-type: none"> <li>■ <b>Direct Instruction.</b> Instructor focuses participants' attention on active engagement in mathematical calculations of managed care capitation rates, and in interpreting financial reports. Work is completed individually during direct instruction, to maximize time that participants actively are engaged in completing complex insurance-rate (math) problems. Later in the program, after practice has increased the participants' familiarity with the calculations, group assignments, using collaborative learning, supplement the individual problem-solving assignments.</li> </ul> <p><b>III. Ethical and Legal Issues for Practicing Medicine in a Managed Care Environment</b></p> <p>Objectives</p> <ol style="list-style-type: none"> <li>1. Identify potential ethical and legal dilemmas facing physicians</li> <li>2. Identify possible strategies for appropriate decision making</li> </ol> <p>Instructional Strategy</p> <ul style="list-style-type: none"> <li>■ <b>Jurisprudential Inquiry.</b> Facilitated by leaders of small groups, participants debate ethical and legal issues based on vignettes designed to simulate real-life situations. During panel debates, representatives of the groups take positions on particular cases and cite pertinent literature to support their positions.</li> </ul> <p><b>IV. Problem-Based Learning Case for Evaluating an Offer To Contract with a New HMO</b></p> <p>Objectives</p> <ol style="list-style-type: none"> <li>1. Participants will integrate administrative, financial, and ethical aspects of managed care to evaluate a potential HMO contract offer</li> <li>2. Participants will describe risks and benefits associated with the HMO contract described in the case</li> </ol> <p>Instructional Strategy</p> <ul style="list-style-type: none"> <li>■ <b>Problem-Based Learning.</b> Format uses work in small groups led by group facilitators (preferably content experts in managed care). Facilitators <i>activate attention</i> by presentation of the case in a manner that will <i>inform participants of the objectives</i>. This learner-centered approach requires the participants to <i>mutually present stimulus materials,*</i> and the facilitator <i>provides learning guidance and feedback</i>. Each small group thoroughly researches this complex case problem and presents its "solution" to the rest of the participants. Both facilitators and peers provide <i>performance assessment</i>. Shared discussions of "solutions" enable participants to elaborate on and restructure their medical care schema to provide opportunities for <i>enhanced retention and transfer of knowledge</i>.</li> </ul> |
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\*Stimulus materials include tables, diagrams, written reports, or discussions of the salient points relating to the problem(s) presented.

**Table 2.** CME Curriculum Development Process

| <b>Action</b>   | <b>Rationale</b>  |
|---|---|
| Conduct informal discussions with colleagues on idea of developing a CME curriculum in managed care   | <ul style="list-style-type: none"> <li>■ Allows assessment of colleagues' opinions about this type of curriculum</li> <li>■ Permits identification of potential support resources</li> <li>■ Provides information on opinion leaders' position on this topic</li> </ul>   |
| With focus group consisting of opinion leaders and cosmopolitan colleagues, further develop idea of new curriculum  | <ul style="list-style-type: none"> <li>■ Provides opportunity to refine curriculum objectives to ensure opinion leaders' support</li> <li>■ Cosmopolitan colleagues may have access to resources external to the organization that could be helpful (eg, "success stories" at other institutions)</li> </ul>  |
| Conduct market assessment and focus group analysis of target audience's critical learning needs   | <ul style="list-style-type: none"> <li>■ Ensures that content will meet target audience's needs, thus helping build confidence that participation levels will be adequate</li> </ul>  |
| Include opinion leaders from target audience in the curriculum planning process   | <ul style="list-style-type: none"> <li>■ Encourages support and participation among more skeptical physicians (potential participants)</li> </ul>   |
| Involve opinion leaders (from among CME providers and target audience) in a site visit or demonstration of a "success story" at another organization  | <ul style="list-style-type: none"> <li>■ Promotes the idea of a "doable" curriculum</li> </ul>  |
| Conduct a pilot project internally with a selected group of opinion leaders from the target audience group  | <ul style="list-style-type: none"> <li>■ Builds confidence that the program can be successful and provides opportunity to adjust curriculum to improve quality</li> <li>■ Maintains momentum</li> <li>■ Favorable outcomes at this stage may be enough to gain early adopters' support</li> </ul>   |
| After success of pilot has been demonstrated, solicit funding support from appropriate institutions (eg, hospitals, medical groups, managed care corporations). Budget should include adequate funding to develop a positive marketing image. | <ul style="list-style-type: none"> <li>■ Funding is a critical aspect of program planning. Developing a new curriculum for a CME program in managed care may require more resources than more traditional CME programs</li> <li>■ A positive marketing campaign is necessary to ensure that the relationship between potential funding sources and the target audience does not give potential participants the impression that coercion is involved. Ideally, support for the program can be demonstrated by opinion leaders within the target audience community</li> </ul> |
| Conduct extensive evaluations and promote successes of the program  | <ul style="list-style-type: none"> <li>■ Presentation to funding sources of high-quality data demonstrating participants' improved performance and positive feedback, increases the potential for continued funding. Success of curriculum may offer opportunity to invite participant opinion leaders to author articles about the program</li> </ul>  |

structional design also offers additional considerations. For example, Richey's theory-based approach to instructional systems design demonstrates that a broad, macro design need not be linear and should emphasize creative problem solving.<sup>14</sup> A detailed instructional outline, or micro design, is based on cognitive learning theory, with increased emphasis on learner control.

Richey<sup>14</sup> also emphasizes that comprehensive evaluation is an essential aspect of an instructional design. In actual practice, however, the evaluation step frequently is omitted.<sup>13</sup> Because empirical data on the application of instructional systems design theory provide support for the concept of a "hot action" environment for continuing educators,<sup>13,15</sup> the demand for CME provider accountability requires careful attention to evaluation data.

### Conclusion

The implementation of a new managed care curriculum for CME requires integration of multiple theoretical frameworks. Because this curriculum is an innovation, diffusion theory offers a model for successful adoption. The curriculum also requires the application of instructional systems design theory as it applies to adult learners. In the case of CME, the adult learners are also a community of professionals, with a unique set of social and organizational issues. Therefore, in order to develop an appropriate curriculum for a CME audience, instructional systems design theory must be integrated with aspects of organizational analysis. In an integrated approach to curriculum development, a theory-based model for a managed care curriculum provides a framework for potential CME providers.

Practicing physicians today, and in the future, must have access to effective educational programs that incorporate managed care into situations that are relevant to their clinical practice settings. Increased emphasis on managing both cost and appropriateness of clinical outcomes will require formalized managed care curricula that work well within the context of the individual physician's practice setting. The successful

design of educational programs that will provide information on managed care to physician participants will become increasingly important.

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*Suggestions for further reading are listed on the following page.*

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