The importance of continuing education for health professionals is widely recognized (Alford, 1980; Boissoneau, 1980; Egdahl & Gertman, 1977; Houle, 1980; Le Breton et al., 1979; Richards, 1978; Stern, 1983). Like most professionals, those in the health disciplines constantly must acquire new knowledge and master new technology to meet increasingly demanding licensing and certification requirements. In addition, certain aspects of education in the health professions, as well as certain aspects of health care, make continuing education desirable. First, in many degree programs students are taught little about clinical practice in highly specialized areas and thus must learn about these areas after they begin their professional practice. Second, there often are relatively few types of health practitioners in underserved rural and inner city areas. Thus, clinicians who work in these settings frequently must provide the basic services that are usually furnished by other disciplines. Continuing education is one means of training therapists to deliver such services.

Despite its importance continuing education receives relatively little attention in the literature of specific health disciplines. Instead, articles about continuing education tend to appear in specialized journals (e.g., Evaluation and the Health Professions, Journal of Medical Education, and Mobius), which do not reach all health professionals. Furthermore, most continuing education articles in these specialized publications focus primarily on research design (Abrahamson, 1984; Bertram & Brooks-Bertram, 1977; Davis et al., 1984; Green & Lewis, 1981; Lloyd & Abrahamson, 1979) or on general issues and trends in continuing education (e.g., Caplan, 1986; Mawby, 1986). Few studies consider conceptual models in continuing education or their application (for exceptions, see Abedor & Sachs, 1984; Gerbert, 1981; Lanziolli & Finestone, 1985; Lauffer, 1977; Nichols & Stewart, 1983; Wang & Walberg, 1983). Thus, there is a need for conceptual models to guide the design and implementation of continuing education in the health professions.

The utility of continuing education conceptual models is illustrated by two well-known continuing medical education projects (Stross & Boyle, 1979, 1980, 1985). In these projects, a conceptual model was used to design continuing education in rheumatoid arthritis and osteoarthritis for primary care physicians. The project model suggested that physicians who had been identified by their peers as the most influential practitioners in their communities should receive continuing education. Because physicians often turn to such influential practitioners in their community for information, it was assumed that these practitioners would be effective in disseminating new information about arthritis. Given the success of these
projects, it is important to identify other models for use among health professionals.

This paper presents two such models. These are (a) instructional development and (b) community development. In the following sections, the rationale and principles underlying these models are discussed. Then a project that incorporated and integrated the models is used to illustrate how they can help to design and implement continuing education for health practitioners.

The Two Models

**Instructional Development Model**

Most education in the health professions is based on an instructional development model that "emphasizes those activities that deal directly with the systematic design, development, implementation, and evaluation of instructional materials, lessons, courses, or curricula in order to improve student learning or teaching efficiency" (Abedor & Sachs, 1984, p. 395).

In the instructional development model, activities such as lectures, seminars, or structured exercises are expected to enhance the knowledge, competence, and performance of those who participate in them. Furthermore, the improved health status of the patient is increasingly included as an outcome of interest in education programs aimed at practitioners (Abrahamson, 1984). There is some evidence that the instructional model can influence health status (Abrahamson, 1984; Bertram & Brooks-Bertram, 1977; Lloyd & Abrahamson, 1979). However, as Abedor and Sachs (1984) and Lauffer (1977) emphasize, individuals, groups, and organizations for whom instruction is provided must accept and use it. Therefore, conceptual models are needed to suggest how to design programs that will motivate people to apply what they have learned and encourage organizations to support them in these efforts. Such a model is described in the following section.

**Community Development Model**

One continuing education approach that can be used in combination with instructional development is community development. Community development can be thought of as "a process designed to create conditions of . . . progress for the whole community with its active participation and the fullest possible reliance on the community's initiative" (United Nations, 1955, p. 6). Community development, which is used by several helping professions (e.g., adult education, public health, and social work), is one method to organize a community (Biddle & Biddle, 1965; Chekki, 1979; Biklen, 1983; Brody, 1982). According to Rothman (1979), the community development model assumes that change can best be achieved by having diverse groups of people participate extensively in goal determination and action and by relying as much as possible on their initiative and capability. The model emphasizes self-help, interpersonal competence, and community integration. This is achieved by promoting consensus and communication among various interest groups, using professionals as enabler-catalysts or coordinators, and involving community people as much as possible in solving their own problems.

The community development model has generated several practice principles identified by Ross (1967), including the following:

- Leaders (both formal and informal) identified with, and accepted by, major subgroups in a community should be involved.
- Goals and methods of procedure should have high acceptability in the community.
- A level and pace of work compatible with existing conditions in a community should be adopted.
- The community groups brought together in cooperative work should be strengthened and supported.

In view of the complex problems that must be dealt with in continuing education, an approach that includes both instructional and community development models is useful. This dual approach was adopted for the continuing education project described below. The example highlights the community development aspects of a continuing education project and illustrates how community development principles were used to complement instructional development activities and strengthen their effects.

**Community-Based Project for Continuing Education in Arthritis**

**Background of Project**

In the literature on continuing education in arthritis, very little attention is paid to conceptual models (for exceptions, see Stross & Bofe, 1979, 1980, 1985). Moreover, despite the importance of continuing education in arthritis for occupational and physical therapists, hardly anything has been published about this topic. Furthermore, the existing literature is atheoretical (Jette & Becker, 1980; National Arthritis Advisory Board, 1980; Vanek, Liebman, Amy, Moskowitz, & Hull, 1985; Wickersham et al., 1982). The following project was designed to address these issues.

In 1982, the North Carolina Division of Adult Health Services contracted with the Rehabilitation Program at the University of North Carolina at Chapel Hill to provide continuing education in arthritis for occupational and physical therapists, as well as other...
allied health professionals working in North Carolina. To do this, the Community-based Arthritis Continuing Education (CACE) project was initiated.

CACE had three broad goals. The first one—a traditional educational goal—was to provide continuing education to practitioners in order to increase their knowledge about arthritis and their skills in treating it. Two other CACE goals, which were less typical of those found in continuing education, were derived from the community development approach. Thus, the second CACE goal was to carry out the project in such a way that an enduring mechanism for conducting continuing education in arthritis would develop. The final goal was to organize and mobilize allied health professionals to effect changes that would improve arthritis care and policies in North Carolina.

**Applying the Community Development Model**

The first logical step in applying the community development model was to define the community. For our purposes, we used the term *community* metaphorically to refer to a group of individuals that was linked conceptually rather than geographically. In other words, the CACE community was thought of as all allied health professionals working with arthritis patients throughout the state of North Carolina. Having specified the target community, we were then able to use the four community development principles presented above.

**Principle 1: Involve Formal and Informal Leaders**

Principle 1 is derived from the community development model premise that all groups and organizations have talented, capable leaders. Hence, it is important for these people to participate as much as possible in any instruction or innovation. It is also assumed that there are two types of leaders. Some are highly visible and hold formal office. Others function as informal leaders who play critical roles in more subtle communication, decision making, and influence processes. The community development model assumes that if these leaders are involved in introducing innovations, others who look to them for leadership will be more likely to accept new ideas and practices.

As a result of Principle 1, CACE was viewed as a collegial endeavor involving the CACE staff as well as the leadership and membership of four organizations: the North Carolina Occupational Therapy Association, the North Carolina Physical Therapy Association, the North Carolina Arthritis Health Professions Association (AHPA), and the North Carolina Area Health Education Centers (AHEC) Program. Each of these organizations was asked to choose a representative for a task force to be responsible for planning CACE (representatives were presidents or past presidents of professional associations or leaders in allied health education). In addition, specialists in educational development and research at a school of medicine were included on the task force. Thus, formal leaders of organizations and subgroups most relevant to arthritis continuing education were represented.

Unofficial opinion leaders were also identified. First, 91 therapists were surveyed to determine which of their colleagues throughout North Carolina they considered to be the most influential members of their disciplines. Not surprisingly, the informal and formal leadership groups overlapped substantially, but not totally.

Because CACE was responsible for a series of workshops in six of nine AHEC areas in North Carolina, local, area, and statewide formal and informal leaders were consulted frequently and kept informed of the plans developed by the task force. This provided the task force with a broad community perspective. Also, formal and informal leaders in each relevant AHEC area were involved as early and as much as possible in organizing and conducting workshops in their areas.

At the beginning of the project, the CACE task force decided to present workshops in established AHEC areas and facilities. The AHEC system is the major mechanism for providing continuing education to North Carolina health professionals. The decision to capitalize on the AHEC system was prompted by community development principles.

**Principle 2: Adopt Acceptable Goals and Procedures**

Another assumption of the community development model is that in developing programs, it is helpful to select methods and goals that are understandable, legitimate, and logically connected for the target population. Also, it is important to take into account how the target population perceives and defines a problem and what approaches the population views as acceptable ways to address a problem.

In keeping with Principle 2, the CACE task force tentatively formulated CACE goals and specified workshop formats. To refine these goals and subject them to further scrutiny, a number of methods were used. First, under the auspices of the three professional associations participating in CACE, a needs assessment was designed and conducted by CACE representatives from these associations. Other CACE task force members provided technical assistance only when asked to do so. The CACE staff also attended a semianual meeting of the occupational therapy association and solicited attendees' ideas about CACE. Because of the CACE project schedule, a similar discussion could not be held with the physical therapy...
association at its annual meeting. As an alternative, we made informal contacts with physical therapists in various workshop areas to find out their preferences concerning arthritis continuing education.

Another means of fostering CACE goals and procedures was choosing CACE workshop themes that were similar to those already selected for upcoming meetings scheduled by the relevant professional associations. A related strategy was to hold CACE workshops conjointly with regular association meetings whenever possible. This is best illustrated by CACE's coordination with the annual physical therapy association meeting. Since the theme of the physical therapy meeting was "problems of the back," and a special course on the sacroiliac joint was being offered at the meeting, the CACE project presented a preconvention workshop on ankylosing spondylitis.

**Principle 3: Adopt Suitable Focus and Pace of Work**

The community development model assumes that the heritage, experience, interests, and aspirations of the target population should be recognized and respected. In particular, it is important to keep in mind a target population's culture and the ways in which it embodies and reflects the population's perceptions, beliefs, and behavior. These, in turn, may affect the rate, form, and extent of change to be expected in a particular population.

In continuing education, the most relevant cultures often are the professional and organizational ones. To learn about these cultures, the CACE task force conducted a formal needs assessment and held guided group discussions. These methods were used to explore practicing occupational and physical therapists' ideas and preferences about continuing education in arthritis. By these means, the task force learned that therapists in most North Carolina AHEC areas preferred workshops that emphasize basic information and procedures immediately applicable in clinical practice. However, practitioners in one region overwhelmingly thought of continuing education as a way of getting information about cutting-edge advances in arthritis research and interventions. These practitioners desired a more academic, research-based approach in continuing education.

Additional information about the practice settings in which therapists worked, the characteristics of their clientele, and therapists' arthritis knowledge was collected. This information enabled the CACE task force to tailor the type and level of content of area workshops to the needs, desires, and characteristics of therapists and organizations in each area (e.g., basic vs. advanced information, industrial vs. agricultural, patient clientele, predominance of inpatients vs. outpatients in caseloads, and presence or absence of extensive arthritis specialty services). Therapists and organizations in different areas also had varying preferences, traditions, and policies regarding the scheduling of continuing education workshops (e.g., days vs. evenings, weekdays vs. weekends). These factors were taken into account in scheduling workshops.

**Principle 4: Strengthen and Support Community Groups**

The fundamental purpose of the community development model is to improve the capacity of the target population to define and resolve problems adequately. One means of enhancing a population's problem-solving capacity is to introduce modifications into the population's social structure with as little disruption of the existing system as possible. When this principle is observed, new ideas and practices can be institutionalized quickly and easily. As a result, innovations increase a target population's problem-solving capacity without weakening its social structure through massive, fundamental changes.

In view of Principle 4, an important objective of CACE was to strengthen the North Carolina AHPA, especially in its advocacy and lobbying activities. One way of doing this was to suggest that CACE workshop participants join AHPA. Publicizing AHPA and holding one area workshop in conjunction with an annual AHPA meeting increased AHPA membership by 50%.

CACE also encouraged the professional associations represented on its task force to form a permanent interorganizational structure to plan and conduct arthritis community education and to engage in social change efforts regarding arthritis. As a result, the AHPA leadership indicated an interest in spearheading such an effort.

Another CACE objective was to have workshop participants assess critically the community arthritis resources in their area and then to formulate strategies to develop needed resources. In at least one area workshop, this process led to plans to organize support groups and a pool therapy program. Collectively, these activities created a sense of accomplishment among members of the target community and increased the visibility of the participating associations.

**Discussion**

Combining community development and instructional development models produces a useful conceptual framework to guide continuing education for health professionals. In particular, a community development perspective focuses attention on the needs, desires, resources, and social contexts of participants in continuing education. If these factors are addressed adequately, therapists in a community are
more likely to endorse continuing education, participate in it, and apply what they learn from it. Moreover, identifying leaders, developing community-relevant goals, and fostering group development leads to a deeper understanding of a community—an understanding that is valuable and applicable in subsequent interventions. Thus, once a community development model has been used with a population, resources for future endeavors involving the same population are readily at hand. These resources include both information (e.g., from needs assessments) and people (i.e., access to the leadership of the community).

The community development model is best thought of as a complement to a more traditional instructional model in which experts teach nonexperts in formal settings. The latter can be an efficient means of conveying information. However, it can be misapplied easily. For example, choosing the wrong "experts," teaching at the wrong level of sophistication, using disliked teaching formats, or failing to recognize the special concerns, talents, and social circumstances of the target population are common hazards in community education. Working closely with the target population and defining the curriculum as a product of and for this population substantially reduces such hazards. In short, incorporating community development principles in continuing education is a potentially powerful and enduring means of addressing the educational needs of health professionals and also a potent and effective way of improving health care.

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